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Inventory of Health and Social Service Personnel, 1990

Alberta
HEALTH AND SOCIAL SERVICES
DISCIPLINES COMMITTEE

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Foreword

The Alberta Health and Social Services Disciplines Committee is an interdepartmental body of senior officials representing the following government departments: Advanced Education, Career Development and Employment, Family and Social Services, Health, and the Professions and Occupations Bureau. The primary function of the Committee is to advise the provincial government on issues relating to health and social service personnel and training. To carry out this mandate, the Committee collects information and data through surveys and monitors workforce supply and demand through ongoing research activities.

The Committee recognizes the need to promote awareness of health and social service personnel concerns. With this in mind, the Committee disseminates workforce information to a number of institutions, organizations and the general public. **Inventory of Health and Social Service Personnel**, (previously titled "Health and Social Service Manpower in Alberta") an annual publication, provides a range of information on almost forty health and social service occupations in Alberta. The Committee is confident this publication continues to serve as a useful reference.

On behalf of the Alberta Health and Social Services Disciplines Committee, I wish to thank the staff of the professional associations, licensing boards, post-secondary institutions, and employing agencies for providing valuable data to us. Through their support and cooperation we are able to publish **Inventory of Health and Social Service Personnel, 1990**.

Elvin Christenson, F.C.A.
Chairman, Alberta Health and Social
Services Disciplines Committee

Table of Contents

	Page
Introduction	1
Audiologists and Speech Pathologists	8
Biomedical Engineers	15
Child and Youth Care Workers	19
Chiropractors	23
Combined Laboratory and X-Ray Technicians	27
Community Health Representatives	32
Day Care Workers	36
Dental Assistants	42
Dental Hygienists	47
Dental Technicians	52
Dentists	57
Denturists	62
Dietary Technologists	67
Dietitians and Nutritionists	71
Emergency Medical Technologists	77
Health Record Administrators	83
Health Record Technicians	87
Licensed Practical Nurses	91
Medical Laboratory Technologists	96
Medical Radiation Technologists	102
Occupational Hygienists and Occupational Hygiene Technologists	108
Occupational Therapists	113
Ophthalmic Dispensers	118
Optometrists	123
Pharmacists	127
Pharmacy Assistants	131
Physical Therapists	135
Physicians	140
Podiatrists	148
Prosthetists and Orthotists	153
Psychologists	157
Public Health Inspectors	165
Recreational Therapists	170
Registered Nurses	175
Registered Psychiatric Nurses	187
Rehabilitation Practitioners	191
Respiratory Therapists	197
Social Workers	201

Introduction

This is the thirteenth annual publication on health and social service personnel in Alberta. The Alberta Health and Social Services Disciplines Committee produces this report for the purpose of making workforce information available to the public. The report contains information and statistical data on 38 human service occupations for the year ending December 31, 1990. Included are:

- functional definitions;
- information on professional associations/licensing bodies;
- legislation;
- educational programs, enrolments and graduates;
- data on practitioners by geographical location and community size;
- historical and comparative workforce figures.

Scope of Coverage

These are the thirty-eight human service occupations included in this report:

> audiologists/speech pathologists, biomedical engineers, child and youth care workers, chiropractors, combined laboratory and x-ray technicians, community health representatives, day care workers, dental assistants, dental hygienists, dental technicians, dentists, denturists, dietary technologists, dietitians/nutritionists, emergency medical technicians, health record administrators, health record technicians, licensed practical nurses, medical laboratory technologists, medical radiation technologists, occupational hygienists/occupational hygiene technologists, occupational therapists, ophthalmic dispensers, optometrists, pharmacists, pharmacy assistants, physicians, physical therapists, podiatrists, prosthetists and orthotists, psychologists, public health inspectors, recreational therapists, registered nurses, registered psychiatric nurses, rehabilitation practitioners, respiratory therapists, social workers.

The health care and social service sector contains numerous occupations. However, due to the constraints of time and other resources, it is not possible for all occupations to be reported in this publication. Two criteria have been used in the decision to include an occupation: legislative recognition and the existence of training programs. Only occupations with professional legislation and/or formal training programs in Alberta (or inter-provincial training agreements) are included.

As in previous reports, data on personnel is presented by geographic distribution. Census divisions are used for this purpose. As of 1986, the number of census divisions increased from 15 to 19 . As a result, census division data before and after 1986 are not comparable. In conjunction with this change, the boundaries of the Census Metropolitan Areas of Calgary and Edmonton increased to include a number of surrounding areas.[1] Workforce information for the two Census Metropolitan Areas is presented separately from their respective census divisions in order to provide a clearer picture of the urban and non-urban distribution of personnel. The map on the following page shows the census divisions and the major urban centres within each division.

In addition to the distribution of personnel by census divisions, the distribution of personnel by community size is also included for each occupation.

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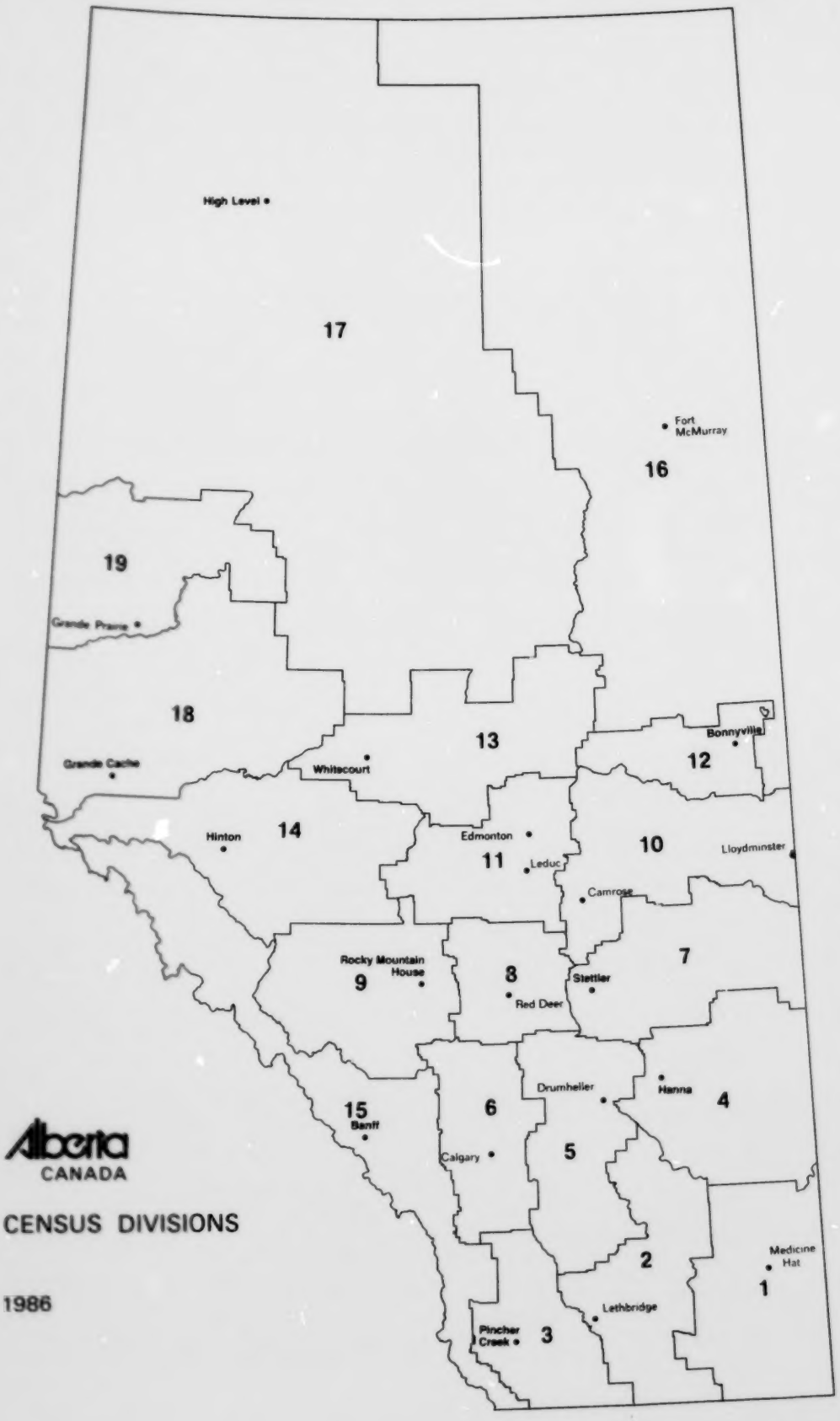
1 [The Census Metropolitan Area of Edmonton includes the cities of Edmonton, Fort Saskatchewan, Leduc, and St. Albert; the towns of Beaumont, Bon Accord, Calmar, Devon, Drayton Valley, Gibbons, Morinville, Redwater, Spruce Grove, and Stony Plain; the villages of Breton, Entwistle, Legal, New Sarepta, Thorsby, Wabamun, and Warburg; the summer villages of Betula Beach, Edmonton Beach, Golden Days, Itaska Beach, Kapaskwin, Lakeview, Point Alison, Seba Beach, and Sundance Beach; the municipal district of Sturgeon #90; and the counties of Leduc #25, Parkland #31, Strathcona #20; the Alexander #134 and Wabamun #133A Indian Reserves.] [The Census Metropolitan Area of Calgary includes the cities of Airdrie and Calgary; the towns of Cochrane and Crossfield; the villages of Beiseker and Irricana; the summer village of Chestermere Lake; the municipal district of Rocky View #44, and Sarcee Indian Reserve #145.]


High Level
17
Fort McMurray
16
19
Grande Prairie
18
13
Bonnyville
12
Grande Cache
Whitecourt
Hinton
14
Edmonton
11
Leduc
10
Lloydminster
Camrose
Rocky Mountain House
9
8
Stettler
Red Deer
7
Drumheller
Hanna
4
15
Banff
6
Calgary
5
2
Medicine Hat
1
Lethbridge
Pincher Creek
3
Alberta
CANADA
CENSUS DIVISIONS
1986

Information Sources

The principal sources of information and data contained in this report are:

1. The 1980 edition of the **Canadian Classification and Dictionary of Occupations**;
2. Current professional legislation;
3. Provincial professional associations or licensing bodies for health and social service occupational groups (two of the 38 groups have no professional association or licensing body);
4. Surveys of health and social service personnel working in Alberta conducted by the Alberta Health and Social Services Disciplines Committee;
5. Survey of health and social service education programs in Alberta conducted by Alberta Advanced Education;
6. Reports published by Health and Welfare Canada; and
7. Population estimates provided by the Alberta Bureau of Statistics, and Statistics Canada.

The definitions in the **Canadian Classification and Dictionary of Occupations** have been used for most disciplines in this publication. In some cases, definitions were obtained from professional statutes or other sources. Information on legislation was obtained from provincial statutes governing the professions.

About half of the workforce data appearing in the report were obtained from professional associations and licensing bodies, particularly in cases where registration with a professional association or licensing body was mandatory. To obtain this information, a survey of professional associations and licensing bodies was conducted by the Alberta Health and Social Services Disciplines Committee in December 1990. For the remaining workforce groups,the survey of employers of health and social service personnel conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the data source.

Alberta Health and Social Service Education Programs Inventory December 1990 was the source of information on basic education programs contained in this publication. The inventory was compiled by Alberta Advanced Education through a survey of human services educational programs in Alberta's post-secondary institutions.

In order to put its workforce situation in a regional context, Alberta's personnel-to-population ratios for selected occupations were compared to those for Western Canada (Manitoba, Saskatchewan, Alberta and British Columbia combined) where similar information from these other jurisdictions was available. Health and Welfare Canada provided this information.

Data Limitations

Accuracy is considered of utmost importance in data collection. However, there can be deficiencies in the sources of information. Some of these limitations are:

1. Some professional association registries included retired, honorary or associate members who may not have full practice rights. Where possible, such members were excluded for the purpose of this publication.
2. The number of practitioners is likely to be underestimated for those occupational groups where registration is not mandatory in order to practise. For such groups, the survey of employers of health and social service personnel was used as the source of data. Workforce statistics from the survey of employers indicate the number of personnel practising at the time of the survey. The registration data from professional associations or registration bodies provide workforce data about the potential number of personnel in the province; the actual number practising is generally lower than the total registered.
3. The dates for the data will vary depending on the source. March 31 is the date of the annual employment survey. However, data from professional associations is based on the associations' membership year. For the majority of groups this date is December 31.

Workforce Situation in 1990

Since 1979, the Alberta Health and Social Services Disciplines Committee has conducted workforce surveys of employers of health and social service personnel in Alberta. Fifteen surveys have been completed since then, two annually from 1979 to 1981, and one in each year since 1982. The Committee's fifteenth employer survey was conducted on March 31, 1990. Data were sought on 139 occupations from 5,404 employers, with a response rate of 98.1 percent.

Based on the March 31, 1990 survey, there were 85,880 persons employed in the health and social service sector which represented 74,372 "full-time equivalent" established positions.[1] At the time of the survey, there were 2,980 vacant "full-time equivalent" positions, representing an average vacancy rate of four percent. There were 10,759 "full-time equivalent" resignations during the period from April 1, 1989 to March 31, 1990, representing an average turnover rate of 14.5 percent during the 12-month period prior to the survey.

As of March 31, 1990 the occupational groups experiencing the highest vacancy rates were:

- Dental Hygienists 18.5%
- Occupational Therapists 14.9%
- Physical Therapists 14.3%
- Speech Pathologists 13.8%
- Prosthetists/Orthotists 10.7%
- Registered Nurses — Psychiatric Ward 9.2%
- Orthoptists 9.1%
- Social Service Aides 8.1%
- Hospital Porters 7.8%
- Registered Nurses — Long Term Care/Rehabilitation 7.7%

The occupational groups with the highest turnover rates from April 1, 1989 to March 31, 1990 were:

- Day Care Workers 37.7%
- Prosthetists/Orthotists 25.0%
- Child and Youth Care Workers (excluding day care) 24.9%
- Homemakers 23.5%
- Rehabilitation Practitioners 22.5%
- Occupational Therapists 19.6%
- Dental Assistants 18.0%
- Physical Therapists 17.5%
- Registered Nurses — Medical/Surgical 17.3%
- Ophthalmic Assistants 17.3%

1 "Full-time equivalent" established positions were calculated by adding data on full-time employment and vacancies to data on part-time employment and vacancies which had first been converted to represent full-time employment.

Training of Health and Social Service Personnel

In 1989–90, Alberta had a total of 124 educational programs to train health and social service personnel. These training programs were found in 24 post-secondary educational institutions, hospitals, and cancer treatment centres in the province. In a few areas where there were no educational programs in the province, Alberta had inter-provincial training agreements with institutions outside the province.

Alberta Advanced Education, on behalf of the Alberta Health and Social Services Disciplines Committee, publishes annually a report entitled **Alberta Health and Social Service Education Programs Inventory**. The 1989–90 edition of this publication contains the following information on health and social service training programs in Alberta:

- Location and length of training programs;
- Number of applicants;
- First-year enrolment quotas;
- Actual enrolments; and
- Number of graduates.

Readers who wish to obtain more information in these areas should consult this publication.

Format of the Publication

The format of this report remains the same as previous editions. The 38 occupational groups are organized alphabetically by chapter. Each chapter contains sections on:

- The functional definition and statistical highlights of the occupational group;
- Professional association, licensing authority, and regulatory legislation;
- The number of personnel, their geographical distribution, historical and, if available, comparative workforce data; and
- Basic education programs.

There is a breakdown by specialty for three of the occupational groups: dentists, physicians, and registered nurses.

The table on pages 6 and 7 provides summary information for the 38 occupational groups.

Summary Information

	Number of Registered/ Practising Personnel	Personnel-to-Population Ratio	Legislation	Number of Training Programs	Number of Graduates
Audiologists and Speech Pathologists	354	1:6,982		2	31
Biomedical Engineers	16	1:154,475		3	6
Child and Youth Care Workers	1,795	1:1,377		3	93
Chiropractors	360	1:6,866	X	—	—
Combined Laboratory and X-Ray Technicians	366	1:6,753	X	1	15
Community Health Representatives	131	1:18,867		1	8
Day Care Workers	6,570	1:376		13	320[1]
Dental Assistants	2,318	1:1,066	X	3	160
Dental Hygienists	780	1:3,169	X	1	38
Dental Technicians	215	1:12,546	X	1	14
Dentists	1,305	1:1,894	X	1	49
Denturists	231	1:11,338	X	1	16
Dietary Technologists	317	1:7,797		2	55
Dietitians/Nutritionists	437	1:5,656	X	3	51
Emergency Medical Technicians	1,407	1:1,757	X	4	226
Health Record Administrators	156	1:15,844		1	16
Health Record Technicians	356	1:6,943		1	23
Licensed Practical Nurses	6,488	1:381	X	3[2]	239
Medical Laboratory Technologists	2,770	1:892		3	125
Medical Radiation Technologists	1,293	1:1,912	X	4	68
Occupational Hygienists and Occupational Hygiene Technologists	116	1:21,307		2	9
Occupational Therapists	581	1:4,254	X	2	71

1 Data on the number of graduates in the baccalaureate programs from the University of Alberta and the University of Lethbridge are not included due to unavailability.

2 Excluded from the total number of training programs are the three post-basic courses, and the nursing assistant refresher program.

Summary Information continued

	Number of Registered/ Practising Personnel	Personnel-to-Population Ratio	Legislation	Number of Training Programs	Number of Graduates
Ophthalmic Dispensers	459	1:5,385	X	2	66
Optometrists	216	1:11,442	X	—	—
Pharmacists	2,193	1:1,127	X	1	101
Pharmacy Assistants	702	1:3,521		1	42
Physical Therapists	1,257	1:1,966	X	2	77
Physicians	4,333	1:570	X	2	190
Podiatrists	25	1:98,864	X	—	—
Prosthetists and Orthotists	26	1:95,062		—	—
Psychologists	1,187	1:2,082	X	10	134
Public Health Inspectors	126	1:19,616	X	—	—
Recreational Therapists	315	1:7,846		4	52
Registered Nurses	23,021	1:107	X	27[1]	1,274
Registered Psychiatric Nurses	1,243	1:1,988	X	2[2]	44
Rehabilitation Practitioners	1,396	1:1,770		9	138
Respiratory Therapists	610	1:4,052	X	2	61
Social Workers	2,773	1:891	X	7	420

1 Excluded from the total number of training programs are the refresher courses in nursing offered by six institutions.

2 Psychiatric Nursing Diploma program offered at Alberta Hospital, Edmonton was discontinued. Enrolment for the program was suspended in 1989, and the last class will graduate in 1991.

Audiologists and Speech Pathologists

I. Overview

Definition: Audiologists

Provide diagnostic evaluation and rehabilitative services and conduct research related to hearing. Administer air and bone conduction and other audiometric tests and examinations to determine hearing efficiency. Coordinate audiometric results with medical, social, behavioural and other diagnostic data. Evaluate total response pattern and acoustic tests to differentiate between organic and non-organic hearing loss. Plan, direct and participate in counselling, speech-reading and other rehabilitation programs. Act as consultants to educational, medical and other professional groups. Conduct research in physiology, pathology, biophysics and psychophysics of auditory system, if required. Design and develop clinical and research procedures and apparatus, if required.

Speech Pathologists

Diagnose and treat speech, language and voice disorders and perform related research. Administer tests and observe patient to diagnose nature of disorder and to evaluate degree of impairment. Plan and conduct remedial exercises and programs to correct stuttering, abnormal articulation and other disorders. Provide speech training for patient with communication problems caused by cerebral palsy, surgical removal of larynx, hearing deficiencies or other impairments. Plan individual or group therapy in rehabilitation of communication disorders. Counsel and guide language-handicapped individuals and their families, teachers or employers. Act as consultants to educational, medical, dental and other professional groups. Conduct research related to development of diagnostic and treatment techniques and procedures or design of apparatus.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 446 audiologists and speech pathologists registered with the Speech and Hearing Association of Alberta (SHAA) in 1990.[1] Of these, 367 had full practice rights and 79 were student members. However, registration is not compulsory for audiologists and speech pathologists. According to a survey of health and social service employers conducted by the Alberta Health and Social Services Disciplines Committee, there were 36 audiologists and 318 speech pathologists practising in Alberta in 1990.[2]

According to this survey, approximately 41 percent of these professionals were employed by health units. Another 38 percent worked in acute care hospitals and 15 percent were employed by local school boards and in schools for the handicapped.[3]

Eighty-nine percent of the audiologists and 63 percent of the speech pathologists were employed in the Census Metropolitan Areas of Calgary and Edmonton. The provincial audiologist-to-population ratio was 1:68,656 and the provincial speech pathologist-to-population ratio was 1:7,772 in 1990.

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1 Source: Speech and Hearing Association of Alberta. Number of speech and hearing personnel registered with the SHAA as of October 15, 1990.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

3 Ibid.

II. Professional Association and Legislation Information

a) **Licensing, Registration, or Certification Authority:**

None.

b) **Professional Association:**

Speech and Hearing Association of Alberta
Box 86, Main Post Office
Edmonton, Alberta
T5J 2G9

President: Ms. Connie Alton
President Elect: Ms. Cori Mason

c) **Legislation:**

There is no legislation regulating audiologists and speech pathologists in Alberta at present.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Audiologists, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	0	57,200	—
2 (Lethbridge)	2	117,000	1:58,500
3 (Pincher Creek)	0	36,600	—
4 (Hanna)	0	12,000	—
5 (Drumheller)	0	39,200	—
6 (Calgary excluding CMA)	0	49,000	—
7 (Stettler)	0	39,200	—
8 (Red Deer)	0	124,000	—
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	0	76,600	—
11 (Edmonton excluding CMA)	0	26,500	—
12 (Bonnyville)	0	44,900	—
13 (Whitecourt)	1	56,200	1:56,200
14 (Hinton)	0	25,700	—
15 (Banff)	0	26,000	—
16 (Fort McMurray)	0	47,800	—
17 (High Level)	0	50,100	—
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	1	73,400	1:73,400
Census Metropolitan Area (CMA) of Calgary	14	721,200	1:51,514
Census Metropolitan Area (CMA) of Edmonton	18	818,600	1:45,478
Provincial Total	**36**	**2,471,600[3]**	**1:68,656**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Audiologists, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	14	721,200	1:51,514
Census Metropolitan Area (CMA) of Edmonton	18	818,600	1:45,478
10,000 to 69,999			
Camrose	0	13,400	—
Fort McMurray	0	33,740	—
Grande Prairie	1	27,560	1:27,560
Hinton	0	10,070	—
Lethbridge	2	60,900	1:30,450
Medicine Hat	0	42,930	—
Red Deer	0	56,920	—
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	0	5,750	—
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	0	6,640	—
Ponoka	0	5,850	—
Rocky Mountain House	0	5,350	—
Slave Lake	0	5,930	—
St. Paul	0	4,900	—
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	1	532,480	1:532,480
Provincial Total	**36**	**2,471,600**	**1:68,656**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 1C
Geographic Distribution of Practising Speech Pathologists, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	13	57,200	1:4,400
2 (Lethbridge)	19	117,000	1:6,158
3 (Pincher Creek)	4	36,600	1:9,150
4 (Hanna)	1	12,000	1:12,000
5 (Drumheller)	5	39,200	1:7,840
6 (Calgary excluding CMA)	6	49,000	1:8,167
7 (Stettler)	4	39,200	1:9,800
8 (Red Deer)	21	124,000	1:5,905
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	7	76,600	1:10,943
11 (Edmonton excluding CMA)	2	26,500	1:13,250
12 (Bonnyville)	3	44,900	1:14,967
13 (Whitecourt)	6	56,200	1:9,367
14 (Hinton)	3	25,700	1:8,567
15 (Banff)	2	26,000	1:13,000
16 (Fort McMurray)	6	47,800	1:7,967
17 (High Level)	2	50,100	1:25,050
18 (Grande Cache)	2	13,900	1:6,950
19 (Grande Prairie)	13	73,400	1:5,646
Census Metropolitan Area (CMA) of Calgary	77	721,200	1:9,366
Census Metropolitan Area (CMA) of Edmonton	122	818,600	1:6,710
Provincial Total	**318**	**2,471,600[3]**	**1:7,772**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1D
Community Breakdown of Practising Speech Pathologists, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	77	721,200	1:9,366
Census Metropolitan Area (CMA) of Edmonton	122	818,600	1:6,710
10,000 to 69,999			
Camrose	2	13,400	1:6,700
Fort McMurray	5	33,740	1:6,748
Grande Prairie	8	27,560	1:3,445
Hinton	1	10,070	1:10,070
Lethbridge	11	60,900	1:5,536
Medicine Hat	12	42,930	1:3,578
Red Deer	14	56,920	1:4,066
Wetaskiwin	2	10,200	1:5,100
4,900 to 9,999			
Banff	1	6,920	1:6,920
Bonnyville	0	5,170	-
Brooks	3	9,340	1:3 113
Canmore	1	5,320	1:5,320
Coaldale	3	5,230	1:1,743
Crowsnest Pass	0	6,550	-
Drumheller	2	6,710	1:3,355
Edson	2	7,530	1:3,765
High River	3	5,750	1:1,917
Innisfail	0	5,750	—
Lacombe	3	6,470	1:2,157
Lloydminster	2	9,600	1:4,800
Okotoks	2	6,380	1:3,190
Olds	0	5,230	—
Peace River	2	6,640	1:3,320
Ponoka	3	5,850	1:1,950
Rocky Mountain House	0	5,350	—
Slave Lake	0	5,930	—
St. Paul	1	4,900	1:4,900
Stettler	3	4,950	1:1,650
Taber	1	6,310	1:6,310
Vegreville	2	5,030	1:2,515
Whitecourt	2	6,690	1:3,345
Under 4,900	28	532,480	1:19,017
Provincial Total	**318**	**2,471,600**	**1:7,772**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Audiologists and Speech Pathologists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	332	353	354
% Change in Number of Practising Personnel	-4.0%	6.3%	0.3%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:7,195	1:6,864	1:6,982

IV. Educational Programs

There is a four-year baccalaureate degree in speech pathology offered at the University of Alberta. The program produced 28 graduates in 1989–90. This program includes courses in speech pathology and audiology. However, graduates from the program only qualify as speech pathologists. Audiologists require training at the graduate level.

A master's program in speech pathology was introduced in 1986–87 at the University of Alberta. There were three graduates from this program in the 1989–90 academic year.

Table 3
Educational Programs for Audiologists and Speech Pathologists in Alberta[3]

	1987–88	1988–89	1989–90
A. Baccalaureate Program			
University of Alberta			
Bachelor of Science in Speech Pathology			
(Program Length: 4 years)			
Enrolments:			
1st Year		Pre Professional Year	
2nd Year	35	37	36
3rd Year	34	36	38
4th Year	36	30	32
Graduates:	36	32	28
B. Master's Program			
University of Alberta			
Master of Science in Speech Pathology			
(Program Length: 2 years plus thesis)			
Enrolments:			
1st Year	3	8	3
2nd Year	3	0	12
Graduates:	2	0	3

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Biomedical Engineers

I. Overview

Definition: Biomedical engineering involves the application of engineering principles to living systems. It can involve the adaptation of equipment used in conjunction with living organisms (usually human beings), include life systems modelling and simulation, and involve the design and development of medical devices and equipment for underwater and space missions.[1]

(Source: "Careers in Biomedical Engineering and Technology in Canada," Canadian Medical and Biological Engineering Society, Ottawa, Ontario.)

There were 16 biomedical engineers who resided in Alberta and registered with the Canadian Medical and Biological Engineering Society in 1990.[2] Biomedical engineers located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 88 percent of the total. The provincial biomedical engineer-to-population ratio was 1:154,475 in 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Certification is not mandatory but may be obtained from:
The Canadian Board of Examiners for
Clinical Engineering Certification
C.M.B.E.S. Secretariat
c/o National Research Council
Room 302, Building M–50
Ottawa, Ontario
K1A 0R8

b) Professional Association:

Canadian Medical and Biological Engineering Society
c/o National Research Council
Room 307, Building M–50
Ottawa, Ontario
K1A 0R8

President: Dr. Robert Kearney

c) Legislation:

There is no legislation regulating biomedical engineers in Alberta at present.

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1 The term, "biomedical engineer," is often used much more loosely to cover physicists, computing scientists, and other specialists and technicians, working in the biomedical field, many of whom are not qualified as engineers. In this chapter, this broader interpretation is used.

2 Source: Canadian Medical and Biological Engineering Society. Number of biomedical engineers registered with the Canadian Medical and Biological Engineering Society and residing in Alberta as of December 31, 1990.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Biomedical Engineers, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	1	57,200	1:57,200
2 (Lethbridge)	0	117,000	—
3 (Pincher Creek)	0	36,600	—
4 (Hanna)	0	12,000	—
5 (Drumheller)	0	39,200	—
6 (Calgary excluding CMA)	0	49,000	—
7 (Stettler)	0	39,200	—
8 (Red Deer)	0	124,000	—
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	0	76,600	—
11 (Edmonton excluding CMA)	0	26,500	—
12 (Bonnyville)	0	44,900	—
13 (Whitecourt)	0	56,200	—
14 (Hinton)	0	25,700	—
15 (Banff)	0	26,000	—
16 (Fort McMurray)	1	47,800	1:47,800
17 (High Level)	0	50,100	—
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	0	73,400	—
Census Metropolitan Area (CMA) of Calgary	4	721,200	1:180,300
Census Metropolitan Area (CMA) of Edmonton	10	818,600	1:81,860
Provincial Total	**16**	**2,471,600[3]**	**1:154,475**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Biomedical Engineers, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	4	721,200	1:180,300
Census Metropolitan Area (CMA) of Edmonton	10	818,600	1:81,860
10,000 to 69,999			
Camrose	0	13,400	—
Fort McMurray	1	33,740	1:33,740
Grande Prairie	0	27,560	—
Hinton	0	10,070	—
Lethbridge	0	60,900	—
Medicine Hat	1	42,930	1:42,930
Red Deer	0	56,920	—
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	0	5,750	—
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	0	6,640	—
Ponoka	0	5,850	—
Rocky Mountain House	0	5,350	—
Slave Lake	0	5,930	—
St. Paul	0	4,900	—
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	0	532,480	—
Provincial Total	**16**	**2,471,600**	**1:154,475**

1 Source: Canadian Medical and Biological Engineering Society. Number of biomedical engineers registered with the Canadian Medical and Biological Engineering Society and residing in Alberta as of December 31, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Biomedical Engineers in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	17	16	16
% Change in Number of Registered Personnel	0.0%	-5.9%	0.0%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio:			
— Alberta	1:140,512	1:115,911	1:151,438
— Western Canada[3]	1:112,394	1:154,475	—

IV. Educational Programs

The Department of Applied Sciences in Medicine at the University of Alberta offers graduate programs for physicists, engineers, computing scientists and other specialists. In addition, master's and doctoral degree programs are available to students registered in the engineering or science faculties but carrying out their research in the Faculty of Medicine. In 1989–90, four students graduated from the master's programs and two from the doctoral program.

Table 3
Educational Programs for Biomedical Engineers in Alberta[4]

	1987–88	1988–89	1989–90
A. Master's Programs			
University of Alberta			
Master's of Science or Engineering			
offered by the Faculty of Engineering and			
the Department of Applied Science in Medicine			
(Program Length: variable)			
Enrolments:	12	7	17
Graduates:	2	2	4
B. Doctoral Program			
University of Alberta			
(Program Length: variable)			
Enrolments:	5	9	8
Graduates:	0	1	2

1 Source: Canadian Medical and Biological Engineering Society. Number of biomedical engineers registered with the Canadian Medical and Biological Engineering Society and residing in Alberta as of December 31 of the indicated year.

2 Source: **Alberta Population Growth, First Quarter, 1991**. Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: Ratios for the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined derived from, **Health Personnel in Canada — 1989**. Ottawa, Ontario: Department of National Health and Welfare, March 1990.

4 Source: Department of Mechanical Engineering, University of Alberta, Edmonton, July 1991.

Child and Youth Care Workers

I. Overview

Definition: Provide care and counselling to children, youth and their families. The child or youth with emotional and/or behavioural problems is often the main focus of attention. The worker establishes a relationship with the child or youth and engages him in activities planned to teach competence and responsibility. Child and youth care includes the following tasks: shape the child or youth's environment to support his development of skills; manage a child or youth's maladaptive behaviour; mediate between children, youth and their families as appropriate; assess and communicate the progress of children and youth; provide individual and group activities in a living or community setting; teach living skills and independent skills. Settings include the family home, school, residential facilities, group homes, hospitals, foster homes and community environments.

(Source: Alberta Family and Social Services)

Since registration with the Child and Youth Care Association of Alberta is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

There were 1,795[1] child and youth care workers practising in Alberta in 1990.[2] Those employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 70 percent of the total. The provincial child care worker-to-population ratio was 1:1,377 in 1990. Since child care workers primarily work with children and adolescents, the adjusted provincial child care worker-to-population (5–17 years) ratio was 1:267 in 1990.[3]

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Child and Youth Care Association of Alberta
P.O. Box 11360
Edmonton, Alberta
T5J 3K6

President: Mr. Eric Brown
President Elect: Mr. Barry Fulton

c) Legislation:

There is no legislation regulating child and youth care workers in Alberta at present.

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1 Included in the total (1,795) were hospital child care workers (41) and houseparents (127) which were excluded in years prior to 1989.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

3 Source: Estimates of (5-17) year old population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, July 1991.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Child and Youth Care Workers, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	44	57,200	1:1,300
2 (Lethbridge)	77	117,000	1:1,519
3 (Pincher Creek)	11	36,600	1:3,327
4 (Hanna)	3	12,000	1:4,000
5 (Drumheller)	0	39,200	—
6 (Calgary excluding CMA)	29	49,000	1:1,690
7 (Stettler)	10	39,200	1:3,920
8 (Red Deer)	61	124,000	1:2,033
9 (Rocky Mountain House)	4	16,300	1:4,075
10 (Camrose)	23	76,600	1:3,330
11 (Edmonton excluding CMA)	17	26,500	1:1,559
12 (Bonnyville)	97	44,900	1:463
13 (Whitecourt)	6	56,200	1:9,357
14 (Hinton)	4	25,700	1:6,425
15 (Banff)	11	26,000	1:2,364
16 (Fort McMurray)	54	47,800	1:885
17 (High Level)	50	50,100	1:1,002
18 (Grande Cache)	3	13,900	1:4,633
19 (Grande Prairie)	43	73,400	1:1,707
Census Metropolitan Area (CMA) of Calgary	727	721,200	1:992
Census Metropolitan Area (CMA) of Edmonton	521	818,600	1:1,571
Provincial Total	**1,795**	**2,471,600[3]**	**1:1,377**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Child and Youth Care Workers, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	727	721,200	1:992
Census Metropolitan Area (CMA) of Edmonton	521	818,600	1:1,571
10,000 to 69,999			
Camrose	17	13,400	1:788
Fort McMurray	30	33,740	1:1,125
Grande Prairie	11	27,560	1:2,505
Hinton	4	10,070	1:2,518
Lethbridge	66	60,900	1:923
Medicine Hat	44	42,930	1:976
Red Deer	42	56,920	1:1,355
Wetaskiwin	15	10,200	1:680
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	2	5,170	1:2,585
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	4	6,550	1:1,638
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	13	5,750	1:442
Innisfail	4	5,750	1:1,438
Lacombe	8	6,470	1:809
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	0	6,640	—
Ponoka	0	5,850	—
Rocky Mountain House	4	5,350	1:1,338
Slave Lake	7	5,930	1:847
St. Paul	10	4,900	1:490
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	3	6,690	1:2,230
Under 4,900	263	532,480	1:2,025
Provincial Total	**1,795**	**2,471,600**	**1:1,377**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Child and Youth Care Workers in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	1,576	1,825	1,795
% Change in Number of Practising Personnel	10.4%	N/A	-1.6%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:1,516	1:1,328	1:1,377

IV. Educational Programs

Grant MacEwan Community College, Lethbridge Community College, and Mount Royal College each offer a two-year child and youth care worker diploma program. The three programs produced 93 graduates in 1989–90.

Table 3
Educational Programs for Child and Youth Care Workers in Alberta[3]

	1987–88	1988–89	1989–90
Child and Youth Care Worker Diploma			
Grant MacEwan Community College			
(Program Length: 2 years)			
Enrolments:			
1st Year	66	57	50
2nd Year	40	29	39
Graduates:	41	30	33
Lethbridge Community College			
(Program Length: 2 years)			
Enrolments:			
1st Year	30	32	32
2nd Year	17	18	22
Graduates:	12	12	22
Mount Royal College			
(Program Length: 2 years)			
Enrolments:			
1st Year	63	47	59
2nd Year	43	57	52
Graduates:	23	40	38
Provincial Total			
Number of Training Programs: 3			
Graduates:	76	82	93

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Chiropractors

I. Overview

Definition: A chiropractor practises within the branch of the healing arts concerned with the restoration and maintenance of human health by the chiropractic adjustment or manipulation of the spinal column and other articulations of the body and includes the use of x-ray and other analytical instruments, therapies and diagnostic procedures.

(Source: The Chiropractic Profession Act, S.A. 1984, Ch. C9.1)

There were 373 chiropractors who registered with the College of Chiropractors of Alberta (CCOA) in 1990. Of these, 360 were active members residing in Alberta, three were practising in another jurisdiction and ten were retired.[1] Sixty percent of active chiropractors in Alberta were located in the Census Metropolitan Areas of Calgary and Edmonton. The provincial chiropractor-to-population ratio was 1:6,866 in 1990.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

College of Chiropractors of Alberta
516, 10235 – 101 Street
Edmonton, Alberta
T5J 3G1

Registrar: Dr. Ray G. Graham
President: Dr. James D. Bortolotto

b) Legislation:

Under the authority of the Chiropractic Profession Act, all individuals who wish to practise as chiropractors must register on an annual basis with the College of Chiropractors of Alberta (CCOA).

The CCOA is responsible for registration, maintaining professional discipline and practice review. The Universities Coordinating Council has the authority to approve faculties of chiropractic and determine equivalencies for registration purposes.

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1 Source: College of Chiropractors of Alberta. Number of chiropractors registered with the CCOA as of December 31, 1990.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Chiropractors, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	10	57,200	1:5,720
2 (Lethbridge)	30	117,000	1:3,900
3 (Pincher Creek)	5	36,600	1:7,320
4 (Hanna)	1	12,000	1:12,000
5 (Drumheller)	8	39,200	1:4,900
6 (Calgary excluding CMA)	7	49,000	1:7,000
7 (Stettler)	5	39,200	1:7,840
8 (Red Deer)	26	124,000	1:4,769
9 (Rocky Mountain House)	3	16,300	1:5,433
10 (Camrose)	14	76,600	1:5,471
11 (Edmonton excluding CMA)	4	26,500	1:6,625
12 (Bonnyville)	4	44,900	1:11,225
13 (Whitecourt)	7	56,200	1:8,029
14 (Hinton)	4	25,700	1:6,425
15 (Banff)	2	26,000	1:13,000
16 (Fort McMurray)	2	47,800	1:23,900
17 (High Level)	1	50,100	1:50,100
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	9	73,400	1:8,156
Census Metropolitan Area (CMA) of Calgary	119	721,200	1:6,061
Census Metropolitan Area (CMA) of Edmonton	99	818,600	1:8,269
Provincial Total	**360**	**2,471,600[3]**	**1:6,866**

1 Source: College of Chiropractors of Alberta. Number of chiropractors registered with the CCOA and residing in Alberta as of December 31, 1990. Excludes inactive, honorary, and retired members.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Chiropractors, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	119	721,200	1:6,061
Census Metropolitan Area (CMA) of Edmonton	99	818,600	1:8,269
10,000 to 69,999			
Camrose	5	13,400	1:2,680
Fort McMurray	2	33,740	1:16,870
Grande Prairie	6	27,560	1:4,593
Hinton	2	10,070	1:5,035
Lethbridge	20	60,900	1:3,045
Medicine Hat	10	42,930	1:4,293
Red Deer	16	56,920	1:3,558
Wetaskiwin	4	10,200	1:2,550
4,900 to 9,999			
Banff	2	6,920	1:3,460
Bonnyville	1	5,170	1:5,170
Brooks	5	9,340	1:1,868
Canmore	0	5,320	—
Coaldale	1	5,230	1:5,230
Crowsnest Pass	0	6,550	—
Drumheller	2	6,710	1:3,355
Edson	2	7,530	1:3,765
High River	2	5,750	1:2,875
Innisfail	3	5,750	1:1,917
Lacombe	2	6,470	1:3,235
Lloydminster	4	9,600	1:2,400
Okotoks	1	6,380	1:6,380
Olds	2	5,230	1:2,615
Peace River	3	6,640	1:2,213
Ponoka	2	5,850	1:2,925
Rocky Mountain House	3	5,350	1:1,783
Slave Lake	1	5,930	1:5,930
St. Paul	2	4,900	1:2,450
Stettler	3	4,950	1:1,650
Taber	4	6,310	1:1,578
Vegreville	3	5,030	1:1,677
Whitecourt	2	6,690	1:3,345
Under 4,900	27	532,480	1:19,721
Provincial Total	**360**	**2,471,600**	**1:6,866**

1 Source: College of Chiropractors of Alberta. Number of chiropractors registered with the CCOA and residing in Alberta as of December 31, 1990. Excludes inactive, honorary, and retired members.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Chiropractors in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	328	347	360
% Change in Number of Registered Personnel	5.1%	5.8%	3.6%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:7,283	1:6,983	1:6,866

IV. Educational Programs

In Canada, chiropractic training can be obtained at the Canadian Memorial Chiropractic College in Toronto which offers a four-year program. Many of Alberta's chiropractors received their chiropractic training in the United States.

1 Source: College of Chiropractors of Alberta. Number of chiropractors registered with the CCOA and residing in Alberta as of December 31 of the year indicated. Excludes inactive, honorary, and retired members.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Combined Laboratory and X-Ray Technicians

I. Overview

Definition: The combined technician is a hospital worker trained to perform laboratory and x-ray work in smaller hospitals that do not have sufficient volume or range of work to warrant employing both a laboratory technologist and an x-ray technician.

(Source: **Saskatchewan Health Manpower Annual Report 1976**. Regina, Saskatchewan: Saskatchewan Health, 1976)

There were 352 combined laboratory and x-ray technicians who resided in Alberta and registered with the Combined Laboratory and X-ray Technicians Committee in 1990.[1] According to a survey of health and social service personnel working in Alberta, 48 percent of combined laboratory and x-ray technicians worked in acute care hospitals having less than 300 beds. Another 48 percent were employed in medical laboratories and radiological facilities.[2] Approximately 40 percent were employed in the Census Metropolitan Areas of Calgary and Edmonton even though in urban centres, medical laboratory and radiation services are usually provided by medical laboratory technologists and medical radiation technologists (see chapters on Medical Laboratory Technologists and Medical Radiation Technologists). The provincial personnel-to-population ratio was 1:6,753 in 1990.

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1 Source: The Combined Laboratory and X-ray Technicians Committee. Alberta Professions and Occupations Bureau. Number of combined laboratory and x-ray technicians registered with the committee and residing in Alberta as of December 31, 1990.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Combined Laboratory and X-Ray Technicians Committee
c/o Professions and Occupations Bureau
5th Floor, 10011 – 109 Street
Edmonton, Alberta
T5J 3S8

Chairman: Ms. Donna Reed

b) Professional Association:

Alberta Association of Combined
Laboratory and X-Ray Technicians
c/o 370 Terrace Plaza
4445 Calgary Trail South
Edmonton, Alberta
T6H 4R7

President: Ms. Barbara Mikulin

c) Legislation:

Regulations under the Health Disciplines Act for combined laboratory and x-ray technicians became effective January 1, 1989. These regulations set out the educational and/or employment requirements for registration under the Act. In addition, the types of service and conditions of practice are specified in regulation. The Combined Laboratory and X-Ray Technicians Committee and the Health Disciplines Board are responsible for registration and discipline of practitioners. The titles "combined laboratory x-ray technician" or "certified combined technician" and the initials "CLXT" are reserved by regulation for registered members.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Combined Laboratory and X-Ray Technicians, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	4	57,200	1:14,300
2 (Lethbridge)	16	117,000	1:7,313
3 (Pincher Creek)	4	36,600	1:9,150
4 (Hanna)	9	12,000	1:1,333
5 (Drumheller)	11	39,200	1:3,564
6 (Calgary excluding CMA)	13	49,000	1:3,769
7 (Stettler)	25	39,200	1:1,568
8 (Red Deer)	40	124,000	1:3,100
9 (Rocky Mountain House)	5	16,300	1:3,260
10 (Camrose)	24	76,600	1:3,192
11 (Edmonton excluding CMA)	1	26,500	1:26,500
12 (Bonnyville)	12	44,900	1:3,742
13 (Whitecourt)	19	56,200	1:2,958
14 (Hinton)	7	25,700	1:3,671
15 (Banff)	3	26,000	1:8,667
16 (Fort McMurray)	4	47,800	1:11,950
17 (High Level)	12	50,100	1:4,175
18 (Grande Cache)	2	13,900	1:6,950
19 (Grande Prairie)	8	73,400	1:9,175
Census Metropolitan Area (CMA) of Calgary	31	721,200	1:23,265
Census Metropolitan Area (CMA) of Edmonton	116	818,600	1:7,057
Provincial Total	**366**	**2,471,600[3]**	**1:6,753**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Combined Laboratory and X-Ray Technicians, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	31	721,200	1:23,265
Census Metropolitan Area (CMA) of Edmonton	116	818,600	1:7,057
10,000 to 69,999			
Camrose	0	13,400	—
Fort McMurray	1	33,740	1:33,740
Grande Prairie	0	27,560	—
Hinton	4	10,070	1:2,518
Lethbridge	5	60,900	1:12,180
Medicine Hat	0	42,930	—
Red Deer	17	56,920	1:3,348
Wetaskiwin	1	10,200	1:10,200
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	3	5,170	1:1,723
Brooks	0	9,340	—
Canmore	2	5,320	1:2,660
Coaldale	3	5,230	1:1,743
Crowsnest Pass	0	6,550	—
Drumheller	1	6,710	1:6,710
Edson	2	7,530	1:3,765
High River	0	5,750	—
Innisfail	3	5,750	1:1,917
Lacombe	3	6,470	1:2,157
Lloydminster	2	9,600	1:4,800
Okotoks	1	6,380	1:6,380
Olds	3	5,230	1:1,743
Peace River	0	6,640	—
Ponoka	5	5,850	1:1,170
Rocky Mountain House	5	5,350	1:1,070
Slave Lake	3	5,930	1:1,977
St. Paul	0	4,900	—
Stettler	1	4,950	1:4,950
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	154	532,480	1:3,458
Provincial Total	**366**	**2,471,600**	**1:6,753**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Combined Laboratory and X-Ray Technicians in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	306	366	366
% Change in Number of Practising Personnel	-1.6%	19.6%	0%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:7,806	1:6,620	1:6,753

IV. Educational Programs

The Northern Alberta Institute of Technology offers a one-year combined laboratory and x-ray technology certificate program. The program produced 15 graduates in 1989–90.

Table 3
Educational Program for Combined Laboratory and X-Ray Technicians in Alberta[3]

	1987–88	1988–89	1989–90
Certificate in Combined Laboratory and X-Ray Technology			
Northern Alberta Institute of Technology			
(Program Length: 1 year + 6 months practicum)			
Enrolments:	21	16	22
Graduates:	12	14	15

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Community Health Representatives

I. Overview

Definition: Provide health education and advice primarily to native communities.

(Source: Employer Survey Questionnaire: Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta).

As of October 31, 1990 there were 62 registered members with the Community Health Representative Association.[1] Since registration with the association is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

According to the survey, 131 community health representatives were practising in the province in 1990.[2] Community health representatives in the Census Metropolitan Areas of Calgary and Edmonton accounted for only 11 percent of the total. The provincial personnel-to-population ratio was 1:18,867 in 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Community Health Representative Association of Alberta
c/o Alberta Indian Health Care Commission
1390 First Edmonton Place
10665 Jasper Avenue
Edmonton, Alberta
T5A 3S5

President: Ms. Florence Willier
Vice President: Ms. Betty Smith

c) Legislation:

None

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1 Source: Community Health Representative Association of Alberta. Number of community health representatives registered with the Association and residing in Alberta as of October 31, 1990.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Community Health Representatives, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	0	57,200	—
2 (Lethbridge)	0	117,000	—
3 (Pincher Creek)	5	36,600	1:7,320
4 (Hanna)	0	12,000	—
5 (Drumheller)	4	39,200	1:9,800
6 (Calgary excluding CMA)	0	49,000	—
7 (Stettler)	0	39,200	—
8 (Red Deer)	0	124,000	—
9 (Rocky Mountain House)	4	16,300	1:4,075
10 (Camrose)	0	76,600	—
11 (Edmonton excluding CMA)	1	26,500	1:26,500
12 (Bonnyville)	26	44,900	1:1,727
13 (Whitecourt)	3	56,200	1:18,733
14 (Hinton)	0	25,700	—
15 (Banff)	0	26,000	—
16 (Fort McMurray)	35	47,800	1:1,366
17 (High Level)	31	50,100	1:1,616
18 (Grande Cache)	4	13,900	1:3,475
19 (Grande Prairie)	4	73,400	1:18,350
Census Metropolitan Area (CMA) of Calgary	5	721,200	1:144,240
Census Metropolitan Area (CMA) of Edmonton	9	818,600	1:90,956
Provincial Total	**131**	**2,471,600[3]**	**1:18,867**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Community Health Representatives, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	5	721,200	1:144,240
Census Metropolitan Area (CMA) of Edmonton	9	818,600	1:90,956
10,000 to 69,999			
Camrose	0	13,400	—
Fort McMurray	4	33,740	1:8,435
Grande Prairie	0	27,560	—
Hinton	0	10,070	—
Lethbridge	0	60,900	—
Medicine Hat	0	42,930	—
Red Deer	0	56,920	—
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	6	5,170	1:862
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	0	5,750	—
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	1	6,640	1:6,640
Ponoka	0	5,850	—
Rocky Mountain House	4	5,350	1:1,338
Slave Lake	0	5,930	—
St. Paul	1	4,900	1:4,900
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	101	532,480	1:5,272
Provincial Total	**131**	**2,471,600**	**1:18,867**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Community Health Representatives in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel	97[1]	125[2]	131[2]
% Change in Number of Practising Personnel	N/A	N/A	4.8%
Population (Alberta)[3]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:24,626	1:19,384	1:18,867

IV. Educational Programs

The Alberta Vocational College in Lac La Biche offers a 30 week certificate program in community health work. The program produced eight graduates in 1989–90.

Table 3
Educational Program for Community Health Representatives in Alberta[4]

	1987–88	1988–89	1989–90
Community Health Representative Certificate			
Alberta Vocational College, Lac La Biche (Program Length: 30 weeks)			
Enrolments:	24	31	19
Graduates:	15	24	8

1 Source: Community Health Representative Association of Alberta. Number of community health representatives registered with the Association and residing in Alberta as of December 31, 1988.

2 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

3 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

4 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Day Care Workers

I. Overview

Definition: Supervise rest periods, play activities, developmental exercises, feeding and hygiene of preschool children at a day care centre.

Greet children and help them to settle into the physical environment. Feed infants and supervise meals and snacks for older children. Diaper infants and direct/assist older children in the use of toilets and personal hygiene. Organize and supervise groups of children in activities such as games, storytelling, arts and crafts and playground exercises. Spend time with individual children, entering into conversation, encouraging self-expression, and promoting inquisitiveness and self-direction. Maintain positive attitude and consistent behaviour, and show loving care. In keeping with practices acceptable to recognized standards and parent's expectations, administer required medications, contact parents when child is ill, and guide a child's behaviour in a manner which preserves and enhances self-esteem and reinforces socially acceptable conduct. Supervise rest and naptimes. Report concerns about a child and a child's developmental progress to the parent and/or supervisor-in-charge. Attend meetings and workshops as required.

(Source: Alberta Family and Social Services)

The survey of health and social service personnel working in Alberta conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee was used as the source of workforce information.

The survey found that there were 6,570[1] day care workers practising in Alberta in 1990.[2] Day care workers employed in the Census Metropolitan areas of Calgary and Edmonton accounted for 79 percent of the total. The provincial day care worker-to-population ratio was 1:376 in 1990.

Since day care workers work with children, the adjusted provincial day care worker-to-population (0-5 years) ratio was 1:38 in 1990.[3]

II. Professional Association and Legislation Information

a) Licensing, Registration or Certification Authority:

None

b) Professional Association:

There is no one association which is recognized as representing all day care workers.

c) Legislation:

There is no legislation regulating day care workers in Alberta at present.

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1 Directors of day care centres are included in the total number of day care workers.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

3 Source: Estimate of 0-5 year old population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, July 1991.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Day Care Workers, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	86	57,200	1:665
2 (Lethbridge)	220	117,000	1:532
3 (Pincher Creek)	37	36,600	1:989
4 (Hanna)	15	12,000	1:800
5 (Drumheller)	79	39,200	1:496
6 (Calgary excluding CMA)	100	49,000	1:490
7 (Stettler)	37	39,200	1:1,059
8 (Red Deer)	194	124,000	1:639
9 (Rocky Mountain House)	28	16,300	1:582
10 (Camrose)	101	76,600	1:758
11 (Edmonton excluding CMA)	54	26,500	1:491
12 (Bonnyville)	63	44,900	1:713
13 (Whitecourt)	44	56,200	1:1,277
14 (Hinton)	10	25,700	1:2,570
15 (Banff)	54	26,000	1:481
16 (Fort McMurray)	55	47,800	1:869
17 (High Level)	72	50,100	1:696
18 (Grande Cache)	24	13,900	1:579
19 (Grande Prairie)	84	73,400	1:874
Census Metropolitan Area (CMA) of Calgary	2,321	721,200	1:311
Census Metropolitan Area (CMA) of Edmonton	2,892	818,600	1:283
Provincial Total	**6,570**	**2,471,600[3]**	**1:376**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Day Care Workers, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	2,321	721,200	1:311
Census Metropolitan Area (CMA) of Edmonton	2,892	818,600	1:283
10,000 to 69,999			
Camrose	32	13,400	1:419
Fort McMurray	46	33,740	1:733
Grande Prairie	40	27,560	1:689
Hinton	10	10,070	1:1,007
Lethbridge	165	60,900	1:369
Medicine Hat	65	42,930	1:660
Red Deer	131	56,920	1:435
Wetaskiwin	21	10,200	1:486
4,900 to 9,999			
Banff	27	6,920	1:256
Bonnyville	15	5,170	1:345
Brooks	22	9,340	1:425
Canmore	17	5,320	1:313
Coaldale	4	5,230	1:1,308
Crowsnest Pass	5	6,550	1:1,310
Drumheller	20	6,710	1:336
Edson	0	7,530	—
High River	34	5,750	1:169
Innisfail	4	5,750	1:1,438
Lacombe	14	6,470	1:462
Lloydminster	33	9,600	1:291
Okotoks	22	6,380	1:290
Olds	25	5,230	1:209
Peace River	8	6,640	1:830
Ponoka	9	5,850	1:650
Rocky Mountain House	28	5,350	1:191
Slave Lake	22	5,930	1:270
St. Paul	10	4,900	1:490
Stettler	10	4,950	1:495
Taber	14	6,310	1:451
Vegreville	0	5,030	—
Whitecourt	9	6,690	1:743
Under 4,900	495	532,480	1:1,076
Provincial Total	**6,570**	**2,471,600**	**1:376**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Day Care Workers in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	5,776	6,221	6,570
% Change in Number of Practising Personnel	—	7.7%	5.6%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:414	1:389	1:376

IV. Educational Programs

Training in early childhood development is offered in one-year certificate programs, two-year diploma programs and four-year baccalaureate programs.

Certificate programs are offered at Alberta Vocational College — Lac La Biche, Keyano College, Lakeland College, Lethbridge Community College, Medicine Hat College, Mount Royal College and Red Deer College. Diploma programs are offered at Grande Prairie Regional College, Grant MacEwan Community College, Mount Royal College, and Red Deer College. Baccalaureate-level training is available as a specialization in early childhood education through the Faculty of Education at the University of Alberta, the University of Calgary, and the University of Lethbridge.

In 1989–90, there were 154 certificate graduates and 138 diploma graduates from the various programs offered in the province. In the baccalaureate program the University of Calgary enrolled 113 students and granted degrees to 28 students.[3] Data on enrolments and graduates from the University of Alberta and the University of Lethbridge are presently unavailable.

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1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991**. Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **The University of Calgary Fact Book 1990-91**, Office of Institutional Analysis, The University of Calgary.

Table 3
Educational Programs for Day Care Workers in Alberta[1]

	1987–88	1988–89	1989–90
A. Certificate Programs in Early Childhood Development			
Alberta Vocational College — Lac La Biche			
(Program Length: 36 weeks)			
Enrolments:	13	9	13
Graduates:	11	4	10
Grande Prairie Regional College[2]			
(Program Length: 1 year)			
Enrolments:[3]	293	286	—
Graduates:	—	2	—
Keyano College			
(Program Length: 1 year)			
Enrolments:	42	57	65
Graduates:	16	13	12
Lakeland College			
(Program Length: 1 year)			
Enrolments:[4]	143	28	25
Graduates:	26	26	17
Lethbridge Community College			
(Program Length: 1 year)			
Enrolments:[4]	499	428	494
Graduates:	20	12	22
Medicine Hat College			
(Program Length: 1 year)			
Enrolments:	23	28	32
Graduates:	17	14	16
Mount Royal College			
(Program Length: 1 year)			
Enrolments:[3]	132	137	151
Graduates:	37	29	39
Red Deer College			
(Program Length: 1 year)			
Enrolments:[3]	144	43	124
Graduates:	54	189	38
Provincial Total			
Number of Certificate Programs: 7			
Graduates:	170	154	154

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 Certificate program is no longer offered.

3 Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

4 Enrolment figures include part-time registrations and may include enrolment data for distance education courses or evening classes.

Table 3 continued
Educational Programs for Day Care Workers in Alberta[1]

	1987–88	1988–89	1989–90
B. Diploma Programs in Early Childhood Development			
Grande Prairie Regional College			
(Program Length: 2 years)			
Enrolments:			
1st Year[2]	293	286	194
2nd Year	18	58	95
Graduates:	17	17	23
Grant MacEwan Community College			
(Program Length: 2 years)			
Enrolments:[3]			
1st Year	528	582	614
2nd Year	93	66	70
Graduates:	49	56	62
Mount Royal College			
(Program Length: 2 years)			
Enrolments:			
1st Year[2]	132	137	151
2nd Year	34	42	39
Graduates:	20	32	32
Red Deer College			
(Program Length: 2 years)			
Enrolments:			
1st Year[2]	144	124	189
2nd Year	36	56	37
Graduates:	19	28	21
Provincial Total			
Number of Diploma Programs: 4			
Graduates:	105	133	138

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

3 Enrolment figures may include part-time students and those in off-campus locations.

Dental Assistants

I. Overview

Definition: Assist dentists in care and treatment of patients. Seat and prepare patient for dental treatment. Arrange instruments, materials and medications and hand them to the dentist. Keep oral operating area clear during dental procedure by using suction devices, water sprays, cotton rolls and holders, and by retraction of cheek and tongue. Prepare filling materials, using mechanical amalgamator and instruments and supply them to dentist as required. Comfort patient through reassuring conversation and actions. Give emergency treatment, as directed by dentist, for local and systemic distress. Advise patients on post-operative care, oral hygiene, and importance of diet and preventive dentistry. Sterilize instruments using ovens, autoclaves and aseptic solutions. Pour, trim and mount plaster models from impressions taken by dentist and perform other dental laboratory procedures. Perform routine maintenance duties such as lubricating equipment, sharpening dental instruments, replacing expendable parts and cleaning equipment and treatment area. Expose, process and mount X-ray films. Polish teeth, apply fluoride to teeth and perform other intra-oral procedures, as permitted by training and by provincial legislation. Act as receptionist, if required.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

As of August 31, 1990 there were 2,258 certified and non-certified members of the Alberta Dental Assistants Association. Of these 2,164 were certified members.[1] Since registration is not mandatory to practise, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

According to the survey, 2,318 dental assistants were practising in the province in 1990.[2] Ninety-three percent of these individuals were employed in dentists' offices.[3] Dental assistants employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 70 percent of the total. The provincial dental assistant-to-population ratio was 1:1,066 in 1990.

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1 Source: Alberta Dental Assistants Association. Number of dental assistants registered with the Association as of August 31, 1990.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

3 Ibid.

II. Professional Association and Legislation Information

a) Professional Association/Certification Body:

Alberta Dental Assistants Association
Suite #204, 10335 – 178 Street
Edmonton, Alberta
T5S 1R5

Executive Director/Registrar: Ms. Melanie Bachand
President: Ms. Moira Cookshaw
President Elect: Ms. Linda Shalagan

b) Legislation:

A new statute, the Dental Disciplines Act, was proclaimed November 1990. Dental assistants are now regulated under this Act. The Act reserves the title "registered dental assistant" alone or in combination with other words for those registered with the association.

The Alberta Dental Assistants Association is now responsible for registration, practice review, and discipline of its members. The Act grants the Universities Coordinating Council authority to approve educational programs and set the term of practical experience. It also evaluates educational qualifications and determines equivalencies for individuals who are not graduates of approved programs.

The Act establishes the Dental Disciplines Advisory Committee consisting of three members of the public, a dentist, a dental hygienist, a dental assistant and a dental technician. This committee is to provide advice respecting regulations under the Act, and any other matter concerning dental health referred by the Minister. Regulations are currently being developed by each of the groups.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Dental Assistants, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	49	57,200	1:1,167
2 (Lethbridge)	102	117,000	1:1,147
3 (Pincher Creek)	28	36,600	1:1,307
4 (Hanna)	11	12,000	1:1,091
5 (Drumheller)	30	39,200	1:1,307
6 (Calgary excluding CMA)	28	49,000	1:1,750
7 (Stettler)	19	39,200	1:2,063
8 (Red Deer)	108	124,000	1:1,148
9 (Rocky Mountain House)	7	16,300	1:2,329
10 (Camrose)	49	76,600	1:1,563
11 (Edmonton excluding CMA)	9	26,500	1:2,944
12 (Bonnyville)	50	44,900	1:898
13 (Whitecourt)	30	56,200	1:1,873
14 (Hinton)	16	25,700	1:1,606
15 (Banff)	28	26,000	1:929
16 (Fort McMurray)	28	47,800	1:1,707
17 (High Level)	14	50,100	1:3,579
18 (Grande Cache)	21	13,900	1:662
19 (Grande Prairie)	56	73,400	1:1,311
Census Metropolitan Area (CMA) of Calgary	708	721,200	1:1,019
Census Metropolitan Area (CMA) of Edmonton	927	818,600	1:883
Provincial Total	**2,318**	**2,471,600[3]**	**1:1,066**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Dental Assistants, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	708	721,200	1:1,019
Census Metropolitan Area (CMA) of Edmonton	927	818,600	1:883
10,000 to 69,999			
Camrose	15	13,400	1:893
Fort McMurray	25	33,740	1:1,350
Grande Prairie	32	27,560	1:861
Hinton	9	10,070	1:1,119
Lethbridge	78	60,900	1:781
Medicine Hat	49	42,930	1:876
Red Deer	84	56,920	1:678
Wetaskiwin	8	10,200	1:1,275
4,900 to 9,999			
Banff	10	6,920	1:692
Bonnyville	13	5,170	1:398
Brooks	9	9,340	1:1,038
Canmore	4	5,320	1:1,330
Coaldale	7	5,230	1:747
Crowsnest Pass	10	6,550	1:655
Drumheller	9	6,710	1:746
Edson	7	7,530	1:1,076
High River	7	5,750	1:821
Innisfail	6	5,750	1:958
Lacombe	8	6,470	1:809
Lloydminster	12	9,600	1:800
Okotoks	7	6,380	1:911
Olds	7	5,230	1:747
Peace River	14	6,640	1:474
Ponoka	10	5,850	1:585
Rocky Mountain House	7	5,350	1:764
Slave Lake	7	5,930	1:847
St. Paul	11	4,900	1:445
Stettler	8	4,950	1:619
Taber	3	6,310	1:2,103
Vegreville	9	5,030	1:559
Whitecourt	0	6,690	—
Under 4,900	198	532,480	1:2,689
Provincial Total	**2,318**	**2,471,600**	**1:1,066**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Dental Assistants in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	2,090	2,168	2,318
% Change in Number of Practising Personnel	2.9%	3.7%	6.9%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:1,143	1:1,118	1:1,066

IV. Educational Programs

Both the Southern Alberta Institute of Technology and the Northern Alberta Institute of Technology offer dental assisting certificate programs. The two programs produced 116 graduates in 1989–90. In addition, the Northern Alberta Institute of Technology offers a correspondence training program. This program, which is 24 months in length and is designed for dental assistants presently employed, had 142 students and 44 graduates in 1989–90.

Table 3
Educational Programs for Dental Assistants in Alberta[3]

	1987–88	1988–89	1989–90
Dental Assisting Certificate			
Northern Alberta Institute of Technology (Program Length: 41 weeks)			
Enrolments:	72	74	73
Graduates:	70	68	71
Correspondence Program (Program Length: 24 months)			
Enrolments:	130	116	142
Graduates:	59	52	44
Southern Alberta Institute of Technology (Program Length: 39 weeks)			
Enrolments:	48	48	48
Graduates:	42	39	45
Provincial Total			
Number of Training Programs: 3			
Graduates:	171	159	160

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Dental Hygienists

I. Overview

Definition: Provide preventive dental services and instruct patients in care of teeth and mouth. Scale and polish teeth to remove hard and soft deposits, using dental instruments and equipment. Polish fillings to remove tarnish and corrosion, using motorized apparatus. Apply topical agents and sealants to teeth to reduce decay. Conduct preliminary dental examination and record case history of patient. Record observed conditions and information for diagnosis and treatment planning by dentist. Instruct individuals and groups in home dental care and provide dietary counselling related to dental health. Expose, process and mount dental x-ray films. Take impressions of teeth for study models. Administer local anaesthetics, place, finish and polish fillings, and remove sutures as permitted by training and by provincial legislation.[1]

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980).

As of October 31, 1990 there were 673 active dental hygienists registered with the Alberta Dental Hygienists Association. Since legislation granting the association responsibility to register individuals was only recently proclaimed, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

According to the survey, 780 dental hygienists were practising in the province in 1990.[2] Eighty-eight percent of these individuals were employed in dentists' offices and 10 percent were employed in health units.[3] Dental hygienists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 75 percent of the total. The provincial dental hygienist-to-population ratio was 1:3,169 in 1990.

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1 Alberta legislation does not permit dental hygienists to engage in activities described in the last sentence.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

3 Ibid.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Dental Hygienists' Association
9720 – 45 Avenue
Edmonton, Alberta
T6E 5C5

Registrar: Ms. Brenda Walker
President: Ms. Jean Suvan

b) Legislation:

A new statute, the Dental Disciplines Act, was proclaimed November 1990. Dental hygienists are now regulated under this Act. The Act reserves the titles "dental hygienists" and "registered dental hygienists" alone or in combination with other words for those registered with the association.

The Alberta Dental Hygienists Association is now responsible for registration, practice review, and discipline of its members. The Act grants the Universities Coordinating Council the authority to approve educational programs and set the term of practical experience. It also evaluates educational qualifications and determines equivalencies for individuals who are not graduates of approved programs.

The Act establishes the Dental Disciplines Advisory Committee consisting of three members of the public, a dentist, a dental hygienist, a dental assistant and a dental technician. This committee is to provide advice respecting regulations under the Act, and any other matter concerning dental health referred by the Minister. Regulations are currently being developed by each of the groups.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Dental Hygienists, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	11	57,200	1:5,200
2 (Lethbridge)	24	117,000	1:4,875
3 (Pincher Creek)	3	36,600	1:12,200
4 (Hanna)	5	12,000	1:2,400
5 (Drumheller)	8	39,200	1:4,900
6 (Calgary excluding CMA)	13	49,000	1:3,769
7 (Stettler)	6	39,200	1:6,533
8 (Red Deer)	47	124,000	1:2,638
9 (Rocky Mountain House)	1	16,300	1:16,300
10 (Camrose)	15	76,600	1:5,107
11 (Edmonton excluding CMA)	1	26,500	1:26,500
12 (Bonnyville)	10	44,900	1:4,490
13 (Whitecourt)	5	56,200	1:11,240
14 (Hinton)	8	25,700	1:3,213
15 (Banff)	5	26,000	1:5,200
16 (Fort McMurray)	15	47,800	1:3,187
17 (High Level)	4	50,100	1:12,525
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	16	73,400	1:4,588
Census Metropolitan Area (CMA) of Calgary	291	721,200	1:2,478
Census Metropolitan Area (CMA) of Edmonton	292	818,600	1:2,803
Provincial Total	**780**	**2,471,600[3]**	**1:3,169**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Dental Hygienists, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	291	721,200	1:2,478
Census Metropolitan Area (CMA) of Edmonton	292	818,600	1:2,803
10,000 to 69,999			
Camrose	8	13,400	1:1,675
Fort McMurray	13	33,740	1:2,595
Grande Prairie	11	27,560	1:2,505
Hinton	6	10,070	1:1,678
Lethbridge	14	60,900	1:4,350
Medicine Hat	11	42,930	1:3,903
Red Deer	35	56,920	1:1,626
Wetaskiwin	1	10,200	1:10,200
4,900 to 9,999			
Banff	3	6,920	1:2,307
Bonnyville	2	5,170	1:2,585
Brooks	4	9,340	1:2,335
Canmore	1	5,320	1:5,320
Coaldale	2	5,230	1:2,615
Crowsnest Pass	0	6,550	—
Drumheller	4	6,710	1:1,678
Edson	2	7,530	1:3,765
High River	4	5,750	1:1,438
Innisfail	2	5,750	1:2,875
Lacombe	5	6,470	1:1,294
Lloydminster	2	9,600	1:4,800
Okotoks	2	6,380	1:3,190
Olds	5	5,230	1:1,046
Peace River	2	6,640	1:3,320
Ponoka	5	5,850	1:1,170
Rocky Mountain House	1	5,350	1:5,350
Slave Lake	1	5,930	1:5,930
St. Paul	2	4,900	1:2,450
Stettler	4	4,950	1:1,238
Taber	2	6,310	1:3,155
Vegreville	2	5,030	1:2,515
Whitecourt	0	6,690	—
Under 4,900	41	532,480	1:12,987
Provincial Total	**780**	**2,471,600**	**1:3,169**

[1] Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

[2] Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Dental Hygienists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	709	737	780
% Change in Number of Practising Personnel	9.9%	3.9%	5.8%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:3,369	1:3,288	1:3,169

IV. Educational Programs

The University of Alberta offers a two-year dental hygiene diploma program. The program produced 38 graduates in 1989–90.

Table 3
Educational Program for Dental Hygienists in Alberta[3]

	1987–88	1988–89	1989–90
Dental Hygiene Diploma			
University of Alberta			
(Program Length: 2 years)			
Enrolments:			
1st Year	43	43	42
2nd Year	37	36	38
Graduates:	37	36	38

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Dental Technicians

I. Overview

Definition: Make and repair dentures and other dental devices. Fabricate full and partial dentures, using wax and plaster models, dental surveyors, articulators (fitting devices) and electric grinders and polishers. Shape metal, vulcanite or plastic plates for dentures. Mount porcelain or plastic teeth in plates using knowledge of size, shape, shade and colour. Finish dentures on grinding and buffing wheels. Construct metal clasps, inlays, bridgework and other aides according to specifications. Join breaks, make additions or reline denture bases to repair dentures.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980).

There were 197 dental technicians who resided in Alberta and registered with the Dental Technicians Board in 1990.[1] Dental technicians located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 87 percent of the total. Dentists in rural areas of the province contract some of their dental laboratory work to dental technicians in the major cities.

The provincial dental technician-to-population ratio was 1:12,546 in 1990. Some of the services performed by dental technicians, such as the making of complete dentures, can also be provided by denturists (see chapter on Denturists).

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1 Source: Dental Technicians Board, Alberta Professions and Occupations Bureau. Number of dental technicians registered with the Dental Technicians Board and residing in Alberta as of December 31, 1990. Number includes dental technicians who were also denturists.

II. Professional Association and Legislation Information

a) Professional Association/Licensing Body:

Alberta Dental Technicians Association
Suite 300, Centre 104
5241 Calgary Trail
Edmonton, Alberta
T6H 5G8

Registrar: Mr. Garry Fransen
Council Chairman: Mr. Thomas Sekersky

b) Legislation:

Until recently, dental technicians were registered with the Dental Technicians Board, a provincial government licensing body established under the Dental Technicians Act. This Act was repealed upon proclamation of the Dental Disciplines Act on November 1, 1990. Dental technicians are now regulated under this Act. The Act reserves the titles "dental technician" and "registered dental technician" alone or in combination with other words for those registered with the association.

The Alberta Dental Technicians Association is now responsible for registration, practice review, and discipline of its members. The Act grants the Universities Coordinating Council the authority to approve educational programs and set the term of practical experience. It also evaluates educational qualifications and determines equivalencies for individuals who are not graduates of approved programs.

The Act establishes the Dental Disciplines Advisory Committee consisting of three members of the public, a dentist, a dental hygienist, a dental assistant and a dental technician. This committee is to provide advice respecting regulations under the Act, and any other matter concerning dental health referred by the Minister. Regulations are currently being developed by each of the groups.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Dental Technicians, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	3	57,200	1:19,067
2 (Lethbridge)	10	117,000	1:11,700
3 (Pincher Creek)	0	36,600	—
4 (Hanna)	0	12,000	—
5 (Drumheller)	0	39,200	—
6 (Calgary excluding CMA)	1	49,000	1:49,000
7 (Stettler)	0	39,200	—
8 (Red Deer)	3	124,000	1:41,333
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	3	76,600	1:25,533
11 (Edmonton excluding CMA)	0	26,500	—
12 (Bonnyville)	1	44,900	1:44,900
13 (Whitecourt)	1	56,200	1:56,200
14 (Hinton)	0	25,700	—
15 (Banff)	0	26,000	—
16 (Fort McMurray)	0	47,800	—
17 (High Level)	0	50,100	—
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	4	73,400	1:18,350
Census Metropolitan Area (CMA) of Calgary	66	721,200	1:10,927
Census Metropolitan Area (CMA) of Edmonton	105	818,600	1:7,796
Provincial Total	**197**	**2,471,600[3]**	**1:12,546**

1 Source: Dental Technicians Board, Alberta Professions and Occupations Bureau. Number of dental technicians registered with the Dental Technicians Board and residing in Alberta as of December 31, 1990. Number includes dental technicians who were also denturists.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Dental Technicians, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	66	721,200	1:10,927
Census Metropolitan Area (CMA) of Edmonton	105	818,600	1:7,796
10,000 to 69,999			
Camrose	3	13,400	1:4,467
Fort McMurray	0	33,740	—
Grande Prairie	4	27,560	1:6,890
Hinton	0	10,070	—
Lethbridge	10	60,900	1:6,090
Medicine Hat	3	42,930	1:14,310
Red Deer	2	56,920	1:28,460
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	1	5,170	1:5,170
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	0	5,750	—
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	0	6,640	—
Ponoka	0	5,850	—
Rocky Mountain House	0	5,350	—
Slave Lake	0	5,930	—
St. Paul	0	4,900	—
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	3	532,480	1:177,493
Provincial Total	**197**	**2,471,600**	**1:12,546**

1 Source: Dental Technicians Board, Alberta Professions and Occupations Bureau. Number of dental technicians registered with the Dental Technicians Board and residing in Alberta as of December 31, 1990. Number includes dental technicians who were also denturists.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Dental Technicians in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	186	186	197
% Change in Number of Registered Personnel	5.1%	0%	5.9%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:12,842	1:13,027	1:12,546

IV. Educational Programs

In order to become a dental technician, an individual must pass the examination set by the Dental Technicians Board and must have either five years of practical experience, one of which is in Alberta, or a two-year dental laboratory technology diploma plus three years of practical experience.

A two-year dental laboratory technology diploma program is offered at the Northern Alberta Institute of Technology (NAIT). The program produced 14 graduates in 1989–90. In 1990, ten additional dental technicians met the certification requirements, and were registered for the first time.

Table 3
Educational Program for Dental Technicians in Alberta[3]

	1987–88	1988–89	1989–90
Dental Laboratory Technology Diploma			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	18	18	18
2nd Year	17	16	18
Graduates:	18	15	14

1 Source: Dental Technicians Board, Alberta Professions and Occupations Bureau. Number of dental technicians registered with the Dental Technicians Board and residing in Alberta as of December 31 of the indicated year. Number includes dental technicians who were also denturists.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Dentists

I. Overview

Definition: The work of dentists is concerned with examining, diagnosing, preventing and treating ailments or abnormalities of gums and teeth, and includes oral surgery.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 1,305 dentists who resided in Alberta and registered with the Alberta Dental Association (ADA) in 1990. Of these dentists, 89 percent were general practitioners and 11 percent were specialists.[1] The number of dentists by specialty is shown in Table 4 of this chapter. Approximately 68 percent of the dentists were graduates of the University of Alberta Faculty of Dentistry, 20 percent were graduates of dental training programs in other Canadian provinces, and 11 percent were graduates of schools of dentistry in other countries.[2]

Dentists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 76 percent of the total. The provincial dentist-to-population ratio was 1:1,894 in 1990.

II. Professional Association and Legislation Information

a) Professional Association/Registration Board:

Alberta Dental Association
101, 8230 – 105 Street
Edmonton, Alberta
T6E 5H9

Executive Director: Dr. B. P. Martinello
Registrar: Dr. B. E. Leroy
President: Dr. G. P. Greeves
President Elect: Dr. J. W. Blair

b) Legislation:

Under the authority of the Dental Profession Act, all individuals who wish to practise as dentists must register with the Alberta Dental Association.

Besides registration functions, the ADA is responsible for regulating the conduct of its members and for practice review. The Dental Profession Act sets the educational qualifications required for registration with the ADA. Post-basic educational qualifications required for registration as a dental specialist are also set in regulation. The Universities Coordinating Council is responsible for the certification of specialists. The professional association also has the authority to prescribe continuing education programs which must be completed by members in order to qualify for re-registration.

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1 Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31, 1990. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

2 Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Dentists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	20	57,200	1:2,860
2 (Lethbridge)	48	117,000	1:2,438
3 (Pincher Creek)	13	36,600	1:2,815
4 (Hanna)	4	12,000	1:3,000
5 (Drumheller)	12	39,200	1:3,267
6 (Calgary excluding CMA)	15	49,000	1:3,267
7 (Stettler)	10	39,200	1:3,920
8 (Red Deer)	61	124,000	1:2,033
9 (Rocky Mountain House)	3	16,300	1:5,433
10 (Camrose)	25	76,600	1:3,064
11 (Edmonton excluding CMA)	4	26,500	1:6,625
12 (Bonnyville)	17	44,900	1:2,641
13 (Whitecourt)	15	56,200	1:3,747
14 (Hinton)	10	25,700	1:2,570
15 (Banff)	11	26,000	1:2,364
16 (Fort McMurray)	14	47,800	1:3,414
17 (High Level)	6	50,100	1:8,350
18 (Grande Cache)	4	13,900	1:3,475
19 (Grande Prairie)	22	73,400	1:3,336
Census Metropolitan Area (CMA) of Calgary	456	721,200	1:1,582
Census Metropolitan Area (CMA) of Edmonton	535	818,600	1:1,530
Provincial Total	**1,305**	**2,471,600[3]**	**1:1,894**

1 Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31, 1990. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Dentists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	456	721,200	1:1,582
Census Metropolitan Area (CMA) of Edmonton	535	818,600	1:1,530
10,000 to 69,999			
Camrose	9	13,400	1:1,489
Fort McMurray	12	33,740	1:2,812
Grande Prairie	14	27,560	1:1,969
Hinton	5	10,070	1:2,014
Lethbridge	35	60,900	1:1,740
Medicine Hat	19	42,930	1:2,259
Red Deer	49	56,920	1:1,162
Wetaskiwin	4	10,200	1:2,550
4,900 to 9,999			
Banff	4	6,920	1:1,730
Bonnyville	3	5,170	1:1,723
Brooks	4	9,340	1:2,335
Canmore	3	5,320	1:1,773
Coaldale	3	5,230	1:1,743
Crowsnest Pass	1	6,550	1:6,550
Drumheller	4	6,710	1:1,678
Edson	5	7,530	1:1,506
High River	3	5,750	1:1,917
Innisfail	3	5,750	1:1,917
Lacombe	4	6,470	1:1,618
Lloydminster	6	9,600	1:1,600
Okotoks	4	6,380	1:1,595
Olds	2	5,230	1:2,615
Peace River	5	6,640	1:1,328
Ponoka	3	5,850	1:1,950
Rocky Mountain House	3	5,350	1:1,783
Slave Lake	3	5,930	1:1,977
St. Paul	5	4,900	1:980
Stettler	3	4,950	1:1,650
Taber	3	6,310	1:2,103
Vegreville	5	5,030	1:1,006
Whitecourt	3	6,690	1:2,230
Under 4,900	85	532,480	1:6,264
Provincial Total	**1,305**	**2,471,600**	**1:1,894**

1 Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31, 1990. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Dentists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	1,258	1,285	1,305
% Change in Number of Registered Personnel	–1.4%	2.1%	1.6%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:1,899	1:1,886	1:1,894

IV. Educational Programs

The University of Alberta offers a four-year Doctor of Dental Surgery (DDS) degree program. A minimum of two years of university preparation is a pre-requisite for acceptance into the program. The program produced 49 graduates in 1989–90.

Table 3
Educational Program for Dentists in Alberta[3]

	1987–88	1988–89	1989–90
Doctor of Dental Surgery			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year	50	51	50
2nd Year	49	47	51
3rd Year	51	48	53
4th Year	45	49	44
Graduates:	44	45	49

1 Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31 of the year indicated. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Table 4
Dentists by Specialty and Personnel-to-Population Ratios by Specialty, Alberta, 1990

Specialty	Number of Dentists[1]	Personnel-to-Population Ratio[2]
Dental Public Health	2	1:1,235,800
Endodontics	15	1:164,773
Oral Pathology	5	1:494,320
Oral Radiology	2	1:1,235,800
Oral and Maxillofacial Surgery	19	1:130,084
Orthodontics	50	1:49,432
Paedodontics	14	1:176,543
Periodontics	21	1:117,695
Prosthodontics	21	1:117,695
Total — Specialists[3]	148	1:16,700
Total — Non-Specialists (General Practitioners)	1,157	1:2,136
Grand Total	**1,305**	**1:1,894**

1 Source: Alberta Dental Association. Number of dentists registered with the ADA and residing in Alberta as of December 31, 1990. Excludes inactive and retired members and some dentists who worked for the Federal Government but were not registered with the ADA.

2 Source: Ratios calculated using a provincial population of 2,471,600 as of June 1, 1990 — Alberta Bureau of Statistics, 1991.

3 Note: The total number of specialists is less than the sum of the dentists in each specialty because one dentist holds more than one specialty.

Denturists

I. Overview

Definition: Design, construct, fit and repair dentures. Measure patient's jaws to determine size and shape of dentures using face bows, dental articulators and other devices. Make impressions and moulds of teeth, gums and jaws and design dentures. Direct other workers to construct dentures.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 218 certified denturists (formerly known as certified dental mechanics) who resided in Alberta and registered with the Board of Examiners for Certified Dental Mechanics in 1990.[1] Denturists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 70 percent of the total. The provincial denturist-to-population ratio was 1:11,338 in 1990.

Denturists usually offer their services from denture clinics independent of a dentist. In Alberta, denturists are permitted to furnish complete dentures only, that is, appliances for individuals with no natural upper or lower teeth. Some of the services performed by denturists, such as the manufacture of complete dentures, are also provided by dental technicians. However, dental technicians are not permitted to fit appliances. Other functions of denturists, such as taking impressions for complete dentures, are also carried out by dentists (see chapters on Dental Technicians and Dentists).

[1] Source: The Board of Examiners for Certified Dental Mechanics, Alberta Professions and Occupations Bureau. Number of denturists registered with the Board and residing in Alberta as of December 31, 1990. Number includes denturists who were also dental technicians.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Board of Examiners for Certified Dental Mechanics
c/o Professions and Occupations Bureau
5th Floor, Kensington Place
10011 – 109 Street
Edmonton, Alberta
T5J 3S8

Chairman: Mr. William J. Love

b) Professional Association:

Denturist Society of Alberta
201, 2 Athabascan Avenue
Sherwood Park, Alberta
T8A 4E3

Administrator: Ms. Lorrie Rees
President: Mr. Shaun Yandt

c) Legislation:

Under the authority of the Dental Mechanics Act, individuals who wish to practise as denturists in the province must be certified by and registered with the Board of Examiners for Certified Dental Mechanics, a provincial government licensing body. Registration with the Denturist Society of Alberta is voluntary.

The Board is responsible for regulating the conduct of denturists and for maintaining professional discipline. It is empowered to re-examine any denturist at any time and to suspend or cancel his/her certification if warranted. The Board also sets the educational qualifications required for certification as a denturist in Alberta.

In 1981, the Dental Mechanics Act was amended to permit dental mechanics to identify themselves as "denturists." The titles "denturist," "dental mechanic," and "certified dental mechanic" are reserved for individuals registered under the Act.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Denturists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	4	57,200	1:14,200
2 (Lethbridge)	15	117,000	1:7,800
3 (Pincher Creek)	1	36,600	1:36,600
4 (Hanna)	0	12,000	—
5 (Drumheller)	5	39,200	1:7,840
6 (Calgary excluding CMA)	1	49,000	1:49,000
7 (Stettler)	3	39,200	1:13,067
8 (Red Deer)	10	124,000	1:12,400
9 (Rocky Mountain House)	1	16,300	1:16,300
10 (Camrose)	10	76,600	1:7,660
11 (Edmonton excluding CMA)	1	26,500	1:26,500
12 (Bonnyville)	2	44,900	1:22,450
13 (Whitecourt)	2	56,200	1:28,100
14 (Hinton)	2	25,700	1:12,850
15 (Banff)	1	26,000	1:26,000
16 (Fort McMurray)	3	47,800	1:15,933
17 (High Level)	1	50,100	1:50,100
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	4	73,400	1:18,350
Census Metropolitan Area (CMA) of Calgary	58	721,200	1:12,434
Census Metropolitan Area (CMA) of Edmonton	94	818,600	1:8,709
Provincial Total	**218**	**2,471,600[3]**	**1:11,338**

1 Source: The Board of Examiners for Certified Dental Mechanics, Alberta Professions and Occupations Bureau. Number of denturists registered with the Board and residing in Alberta as of December 31, 1990. Number includes denturists who were also dental technicians.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Denturists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	58	721,200	1:12,434
Census Metropolitan Area (CMA) of Edmonton	94	818,600	1:8,709
10,000 to 69,999			
Camrose	4	13,400	1:3,350
Fort McMurray	2	33,740	1:16,870
Grande Prairie	1	27,560	1:27,560
Hinton	1	10,070	1:10,070
Lethbridge	10	60,900	1:6,090
Medicine Hat	4	42,930	1:10,733
Red Deer	7	56,920	1:8,131
Wetaskiwin	1	10,200	1:10,200
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	1	5,170	1:5,170
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	1	5,230	1:5,230
Crowsnest Pass	1	6,550	1:6,550
Drumheller	3	6,710	1:2,237
Edson	1	7,530	1:7,530
High River	1	5,750	1:5,750
Innisfail	1	5,750	1:5,750
Lacombe	1	6,470	1:6,470
Lloydminster	2	9,600	1:4,800
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	2	6,640	1:3,320
Ponoka	1	5,850	1:5,850
Rocky Mountain House	1	5,350	1:5,350
Slave Lake	0	5,930	—
St. Paul	0	4,900	—
Stettler	2	4,950	1:2,475
Taber	2	6,310	1:3,155
Vegreville	1	5,030	1:5,030
Whitecourt	0	6,690	—
Under 4,900	15	532,480	1:35,499
Provincial Total	**218**	**2,471,600**	**1:11,338**

1 Source: The Board of Examiners for Certified Dental Mechanics, Alberta Professions and Occupations Bureau. Number of denturists registered with the Board and residing in Alberta as of December 31, 1990. Number includes denturists who were also dental technicians.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Denturists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	202	208	218
% Change in Number of Registered Personnel	0.5%	3.0%	3.8%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:11,825	1:11,649	1:11,338

IV. Educational Programs

As a result of the 1988 amendment to the regulation governing denturists, individuals who wish to practise as denturists must now complete a formal education course of studies. In Alberta, this training consists of a two-year program in denturist technology offered by the Northern Alberta Institute of Technology. Graduates are then required to apprentice for two years under the supervision of a certified denturist and to pass a comprehensive examination. The diploma program produced 16 graduates in 1989–90. The number of newly-certified denturists in 1990 was six.

Table 3
Educational Program for Denturists in Alberta[3]

	1987–88	1988–89	1989–90
Denturists Technology Diploma			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	18	18	18
2nd Year	18	18	18
Graduates:	15	13	16

1 Source: The Board of Examiners for Certified Dental Mechanics, Alberta Professions and Occupations Bureau. Number of denturists registered with the Board and residing in Alberta as of December 31 of the indicated year.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

Dietary Technologists

I. Overview

Definition: Assist in planning and supervising food service programs in governmental, institutional and commercial establishments. Plan menus and diets, under direction of dietitian or nutritionist, to provide required food and nutrients to individuals and groups. Arrange work schedules and assist in supervision of those engaged in preparation and serving of meals. Purchase or requisition food, equipment and other supplies. Maintain food-cost-control and other operational records to assist in improving efficiency and quality of food service system. Inspect storage facilities and work areas to ensure observance of sanitation, safety and security standards. Maintain attendance and personnel records and assist with inventory of supplies and equipment.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Since registration with the Alberta Society of Dietary Technologists is not mandatory, and since some dietary technologists are employed outside of health and social services, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were 317 dietary technologists practising in the health and social service sector in Alberta in 1990.[1] Of these, 66 percent were employed in acute care hospitals, 13 percent in auxiliary hospitals and 12 percent in nursing homes.[2] Dietary technologists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 60 percent of the total. The provincial dietary technologist-to-population ratio was 1:7,797 in 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Alberta Dietary Technologists Association
P.O. Box 2353
Calgary, Alberta
T2P 2M6

President: Ms. Cathy Walling
President Elect: Ms. Pat Munro

c) Legislation:

There is no legislation regulating dietary technologists in Alberta at present. However, in October 1989, the professional association applied for designation under the Health Disciplines Act. The government will be initiating an investigation to review the need to regulate this discipline.

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Dietary Technologists, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	7	57,200	1:8,171
2 (Lethbridge)	8	117,000	1:14,625
3 (Pincher Creek)	9	36,600	1:4,067
4 (Hanna)	4	12,000	1:3,000
5 (Drumheller)	6	39,200	1:6,533
6 (Calgary excluding CMA)	5	49,000	1:9,800
7 (Stettler)	9	39,200	1:4,356
8 (Red Deer)	15	124,000	1:8,267
9 (Rocky Mountain House)	3	16,300	1:5,433
10 (Camrose)	7	76,600	1:10,943
11 (Edmonton excluding CMA)	2	26,500	1:13,250
12 (Bonnyville)	3	44,900	1:14,967
13 (Whitecourt)	15	56,200	1:3,747
14 (Hinton)	2	25,700	1:12,850
15 (Banff)	6	26,000	1:4,333
16 (Fort McMurray)	4	47,800	1:11,950
17 (High Level)	6	50,100	1:8,350
18 (Grande Cache)	2	13,900	1:6,950
19 (Grande Prairie)	14	73,400	1:5,243
Census Metropolitan Area (CMA) of Calgary	68	721,200	1:10,606
Census Metropolitan Area (CMA) of Edmonton	122	818,600	1:6,710
Provincial Total	**317**	**2,471,600[3]**	**1:7,797**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1990.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Dietary Technologists, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	68	721,200	1:10,606
Census Metropolitan Area (CMA) of Edmonton	122	818,600	1:6,710
10,000 to 69,999			
Camrose	2	13,400	1:6,700
Fort McMurray	2	33,740	1:16,870
Grande Prairie	4	27,560	1:6,890
Hinton	1	10,070	1:10,070
Lethbridge	4	60,900	1:15,225
Medicine Hat	6	42,930	1:7,155
Red Deer	8	56,920	1:7,115
Wetaskiwin	2	10,200	1:5,100
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	1	9,340	1:9,340
Canmore	0	5,320	—
Coaldale	1	5,230	1:5,230
Crowsnest Pass	3	6,550	1:2,183
Drumheller	0	6,710	—
Edson	1	7,530	1:7,530
High River	3	5,750	1:1,917
Innisfail	1	5,750	1:5,750
Lacombe	[illegible]	6,470	—
Lloydminster	2	9,600	1:4,800
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	3	6,640	1:2,213
Ponoka	4	5,850	1:1,463
Rocky Mountain House	3	5,350	1:1,783
Slave Lake	2	5,930	1:2,965
St. Paul	2	4,900	1:2,450
Stettler	0	4,950	—
Taber	1	6,310	1:6,310
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	71	532,480	1:7,500
Provincial Total	**317**	**2,471,600**	**1:7,797**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Dietary Technologists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	253	279	317
% Change in Number of Practising Personnel	-3.1%	10.3%	13.6%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:9,422	1:8,685	1:7,797

IV. Educational Programs

Both the Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology offer a two-year program to train dietary technologists. The two programs together produced 55 graduates in 1989–90.

Table 3
Educational Programs for Dietary Technologists in Alberta[3]

	1987–88	1988–89	1989–90
Dietary Technology Diploma			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	25	25	21
2nd Year	24	20	25
Graduates:	22	16	21
Southern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	41	43	42
2nd Year	35	23	36
Graduates:	29	28	34
Provincial Total			
Number of Training Programs: 2			
Graduates:	51	44	55

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Dietitians and Nutritionists

I. Overview

Definition: **Dietitians**

Plan and supervise food service programs in governmental, institutional and commercial establishments to provide nutritionally adequate quality food. Plan diets and menus and evaluate clients' acceptance. Plan and submit budget and manage and control operating costs. Establish and maintain standards of food production and service, sanitation, safety and security. Supervise workers and direct efficient use of personnel and equipment. Institute measures to improve efficiency and quality of food service system. Plan, conduct and evaluate orientation and in-service training programs. Determine food, equipment and supply requirements. Administer established personnel policies. Plan layout designs and determine equipment requirements for new or renovated food services facilities. Prepare material on nutritional value of foods, methods of preparation and recipes, if required.

Nutritionists

Provide consulting services to the community and organize, plan and conduct programs concerning nutrition to assist in promotion of health and prevention of disease. Assess nutritional needs and available resources of community. Develop and implement community programs concerning nutrition. Advise health and other agencies on nutritional and food services standards of their food programs. Counsel individuals and families in nutritional principles, diet, food selection and economical buying practices. Interpret and evaluate current research relating to nutrition and food service systems management to public and to staff. Conduct or participate in in-service education. Plan, conduct and evaluate nutrition education programs for public. Prepare technical publications and publications for the public concerning food and nutrition. Plan, conduct and evaluate dietary studies and participate in studies of diseases with nutrition component. Plan or participate in funding programs and recommend budget. Manage and control financial resources.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 437 dietitians and nutritionists who resided in Alberta and registered with the Alberta Registered Dietitians Association (ARDA) in 1990.[1] Not all registered dietitians and nutritionists practise in the health care and social service sector. According to a workforce survey conducted by the Alberta Health and Social Services Disciplines Committee, there were 330 dietitians and nutritionists employed in health and social service agencies and institutions in 1990.[2] Of these, 61 percent were employed in acute care hospitals, 17 percent in nursing homes and eight percent in auxiliary hospitals.[3]

Registered dietitians and nutritionists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 78 percent of all those registered. The registered dietitian and nutritionist-to-population ratio was 1:5,656 in Alberta in 1990.

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1 Source: Alberta Registered Dietitians Association. Number of dietitians and nutritionists registered with the ARDA and residing in Alberta as of April 30, 1990.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

3 Ibid.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Registered Dietitians Association
370 Terrace Plaza
4445 Calgary Trail South
Edmonton, Alberta
T6H 5R7

President: Ms. Denise Bardeau-Milner
President Elect: Ms. Laurel Temple

b) Legislation:

Although there is no mandatory registration requirement under the Registered Dietitians Act for dietitians and nutritionists in order to practise in the province, only dietitians and nutritionists who are registered with the Alberta Registered Dietitians Association (ARDA) may use the title of "registered dietitian."

In addition to registration functions, the ARDA is responsible for regulating the conduct of its members and maintaining professional discipline. The Universities Coordinating Council evaluates the educational qualifications while the professional association evaluates the practical experience required for registration.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Dietitians and Nutritionists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	7	57,200	1:8,171
2 (Lethbridge)	14	117,000	1:8,357
3 (Pincher Creek)	8	36,600	1:4,575
4 (Hanna)	1	12,000	1:12,000
5 (Drumheller)	3	39,200	1:13,067
6 (Calgary excluding CMA)	5	49,000	1:9,800
7 (Stettler)	3	39,200	1:13,067
8 (Red Deer)	17	124,000	1:7,294
9 (Rocky Mountain House)	1	16,300	1:16,300
10 (Camrose)	8	76,600	1:9,575
11 (Edmonton excluding CMA)	2	26,500	1:13,250
12 (Bonnyville)	4	44,900	1:11,225
13 (Whitecourt)	5	56,200	1:11,240
14 (Hinton)	1	25,700	1:25,700
15 (Banff)	3	26,000	1:8,667
16 (Fort McMurray)	4	47,800	1:11,950
17 (High Level)	1	50,100	1:50,100
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	7	73,400	1:10,486
Census Metropolitan Area (CMA) of Calgary	158	721,200	1:4,565
Census Metropolitan Area (CMA) of Edmonton	185	818,600	1:4,425
Provincial Total	**437**	**2,471,600[3]**	**1:5,656**

1 Source: Alberta Registered Dietitians Association. Number of dietitians and nutritionists registered with the ARDA and residing in Alberta as of April 30, 1990.

2 Source: Estimates of population in Alberta as of Jul[illegible] 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Dietitians and Nutritionists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	158	721,200	1:4,565
Census Metropolitan Area (CMA) of Edmonton	185	818,600	1:4,425
10,000 to 69,999			
Camrose	3	13,400	1:4,467
Fort McMurray	4	33,740	1:8,435
Grande Prairie	3	27,560	1:9,187
Hinton	0	10,070	—
Lethbridge	11	60,900	1:5,536
Medicine Hat	7	42,930	1:6,133
Red Deer	14	56,920	1:4,066
Wetaskiwin	2	10,200	1:5,100
4,900 to 9,999			
Banff	1	6,920	1:6,920
Bonnyville	1	5,170	1:5,170
Brooks	1	9,340	1:9,340
Canmore	1	5,320	1:5,320
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	2	6,710	1:3,355
Edson	1	7,530	1:7,530
High River	2	5,750	1:2,875
Innisfail	0	5,750	—
Lacombe	1	6,470	1:6,470
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	2	5,230	1:2,615
Peace River	1	6,640	1:6,640
Ponoka	1	5,850	1:5,850
Rocky Mountain House	1	5,350	1:5,350
Slave Lake	0	5,930	—
St. Paul	0	4,900	—
Stettler	1	4,950	1:4,950
Taber	1	6,310	1:6,310
Vegreville	1	5,030	1:5,030
Whitecourt	1	6,690	1:6,690
Under 4,900	31	532,480	1:17,177
Provincial Total	**437**	**2,471,600**	**1:5,656**

1 Source: Alberta Registered Dietitians Association. Number of dietitians and nutritionists registered with the ARDA and residing in Alberta as of April 30, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Dietitians and Nutritionists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	379	401	437
% Change in Number of Registered Personnel	5.6%	5.8%	9.0%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:6,303	1:6,042	1:5,656

IV. Educational Programs

The Faculty of Home Economics at the University of Alberta offers a four-year baccalaureate degree program with a major in foods and nutrition. The program produced 46 graduates in 1989–90. The University of Alberta also offers separate master's degree programs in both foods and nutrition. There were five graduates from these two programs in 1989–90. In addition to post-secondary training, individuals must complete a dietetic internship in order to qualify as a registered dietitian.

1 Source: Alberta Registered Dietitians Association. Number of dietitians and nutritionists registered with the ARDA and residing in Alberta as of April 30 of the indicated year.

2 Source: **Alberta Population Growth, First Quarter, 1991**. Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Table 3
Educational Programs for Dietitians and Nutritionists in Alberta[1]

	1987–88	1988–89	1989–90
A. Baccalaureate Program			
University of Alberta			
Home Economics: Foods and Nutrition			
(Program Length: 4 years)			
Enrolments:			
1st Year	54	38	35
2nd Year	53	68	55
3rd Year	37	57	41
4th Year	41	39	79
Graduates:	30	36	46
B. Master's Programs			
University of Alberta			
Home Economics: Foods			
(Program Length: 2 years)			
Enrolments:	8	6	3
Graduates:	2	1	1
University of Alberta			
Home Economics: Nutrition			
(Program Length: 2 years)			
Enrolments:	16	7	14
Graduates:	2	4	4
Provincial Total			
Number of M.Sc. Programs: 2			
Graduates:	4	5	5

[1] Source: Alberta Health and Social Service Education Programs Inventory. Edmonton, Alberta: Department of Advanced Education, December 1990.

Emergency Medical Technicians

I. Overview

Definition: An emergency attendant:

> Gives emergency care to sick and injured persons at the scene of an accident or illness and during transport to a hospital. Assists with lifting of patient onto wheeled cart or stretcher and into and out of ambulance. Gives first aid such as mouth-to-mouth resuscitation, cardiac massage, administration of oxygen and application of bandages and splints. Assists with rescue work, if required. Performs duties of ambulance driver if required.
>
> (Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Emergency medical technicians — ambulance (EMT-A) are ambulance attendants who have received training to provide emergency services at the basic life support level.[1]

In Alberta, training at the EMT-A level is provided at the Southern Alberta Institute of Technology and at the Alberta Vocational College at Lac La Biche.

Emergency medical technicians — paramedic (EMT-P) are ambulance attendants who have received training to provide emergency services at the advanced life support level.[2]

In Alberta, training at the EMT-P level is provided at the Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology.

As of 1986, registration for emergency medical technicians — paramedic and ambulance was set out under the Health Disciplines Act.

There were 1,407 emergency medical technicians registered with the Alberta Prehospital Professions Association (APPA) in this reporting period.[3] Of the total,

68 percent were classified as ambulance attendants and 32 percent as paramedics. Emergency medical technicians in the Census Metropolitan Areas of Calgary and Edmonton accounted for 50 percent of the total. The provincial emergency medical technician personnel-to-population ratio was 1:1,757.

In Alberta, municipalities have the power to set the level of ambulance services. Some municipalities have established ambulance services at the advanced life support level. According to the Alberta Ambulance Operators Association (AAOA) listing of April 1991, 31 of the 98 ambulance operators licensed by the AAOA provide service at the advanced life support level. This factor partly accounts for the uneven distribution of emergency medical personnel in Alberta.

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1 "Basic life support is an emergency first aid procedure that consists of recognizing respiratory and cardiac arrest and starting the proper application of cardiopulmonary resuscitation to maintain life until a victim recovers sufficiently to be transported or until advanced life support is available." (American Heart Association, "Standards for cardiopulmonary resuscitation and emergency cardiac care." Journal of the American Medical Association, Vol. 227, No. 7, Supplement, 1974: p. 84.)

2 According to the American Heart Association, advanced life support for the patient in cardiac arrest consists of the following elements: basic life support, use of adjunctive equipment for ventilation and circulation, cardiac monitoring for dysrhythmia recognition and control, defibrillation, establishment and maintenance of an intravenous infusion lifeline, employment of definitive therapy, including drug administration and stabilization of the patient's condition. (American Heart Association, "Standards for cardiopulmonary resuscitation and emergency cardiac care." Journal of the American Medical Association, Vol. 227, No. 17, Supplement, 1974.)

3 Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of December 31, 1990.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Prehospital Professions Association
8711 – 50 Avenue
Edmonton, Alberta
T6E 5H4

Registrar: Ms. Jackeline Beitel
Chairman: Mr. Murray Brosnikoff

b) Legislation:

There are several statutes which set standards for ambulance services and ambulance attendants.

The Ambulance Services Act received royal assent on July 5, 1990. It is expected that the Act and regulations could be proclaimed on January 1, 1992, providing there are no major issues identified by the stakeholders during the three month public review process.

The Municipal Government Act allows municipalities to provide ambulance services. Some municipalities have enacted bylaws respecting the provision of ambulance service.

The Health Disciplines Act sets educational standards for individuals who practise in a discipline regulated under the Act. Emergency medical technicians, both ambulance and paramedic, have been regulated under this Act since December 31, 1985. The Alberta Prehospital Professions Association is designated under the Act as responsible for registration and discipline of members. The titles "emergency medical technician — ambulance" and "emergency medical technician — paramedic" are reserved for registered members. In addition, the Act provides a mechanism to hear complaints against a registered member, and to discipline those whose skill, judgement or conduct is unacceptable, or those who contravene the legislation.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Emergency Medical Technicians, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	31	57,200	1:1,845
2 (Lethbridge)	100	117,000	1:1,170
3 (Pincher Creek)	27	36,600	1:1,356
4 (Hanna)	9	12,000	1:1,333
5 (Drumheller)	23	39,200	1:1,704
6 (Calgary excluding CMA)	51	49,000	1:961
7 (Stettler)	28	39,200	1:1,400
8 (Red Deer)	132	124,000	1:939
9 (Rocky Mountain House)	9	16,300	1:1,811
10 (Camrose)	31	76,600	1:2,471
11 (Edmonton excluding CMA)	10	26,500	1:2,650
12 (Bonnyville)	38	44,900	1:1,182
13 (Whitecourt)	34	56,200	1:1,653
14 (Hinton)	19	25,700	1:1,353
15 (Banff)	23	26,000	1:1,130
16 (Fort McMurray)	46	47,800	1:1,039
17 (High Level)	27	50,100	1:1,856
18 (Grande Cache)	6	13,900	1:2,317
19 (Grande Prairie)	60	73,400	1:1,223
Census Metropolitan Area (CMA) of Calgary	349	721,200	1:2,066
Census Metropolitan Area (CMA) of Edmonton	354	818,600	1:2,312
Provincial Total	**1,407**	**2,471,600[3]**	**1:1,757**

1 Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of December 31, 1990.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Emergency Medical Technicians, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	349	721,200	1:1,066
Census Metropolitan Area (CMA) of Edmonton	354	818,600	1:2,312
10,000 to 69,999			
Camrose	4	13,400	1:3,350
Fort McMurray	36	33,740	1:937
Grande Prairie	19	27,560	1:1,451
Hinton	12	10,070	1:839
Lethbridge	81	60,900	1:752
Medicine Hat	29	42,930	1:1,480
Red Deer	80	56,920	1:712
Wetaskiwin	9	10,200	1:1,133
4,900 to 9,999			
Banff	5	6,920	1:1,384
Bonnyville	17	5,170	1:304
Brooks	10	9,340	1:934
Canmore	7	5,320	1:760
Coaldale	5	5,230	1:1,046
Crowsnest Pass	4	6,550	1:1,638
Drumheller	9	6,710	1:746
Edson	5	7,530	1:1,506
High River	18	5,750	1:319
Innisfail	20	5,750	1:288
Lacombe	13	6,470	1:498
Lloydminster	2	9,600	1:4,800
Okotoks	11	6,380	1:580
Olds	5	5,230	1:1,046
Peace River	8	6,640	1:830
Ponoka	4	5,850	1:1,463
Rocky Mountain House	6	5,350	1:892
Slave Lake	8	5,930	1:741
St. Paul	7	4,900	1:700
Stettler	10	4,950	1:495
Taber	0	6,310	—
Vegreville	6	5,030	1:838
Whitecourt	6	6,690	1:1,115
Under 4,900	248	532,480	1:2,147
Provincial Total	**1,407**	**2,471,600**	**1:1,757**

1 Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of December 31, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Emergency Medical Technicians in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel	1,342[1]	1,311[2]	1,407[3]
% Change in Number of Registered Personnel	-1.8%	-2.3%	7.3%
Population (Alberta)[4]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:1,780	1:1,848	1:1,757

IV. Educational Programs

Both the Southern Alberta Institute of Technology and the Northern Alberta Institute of Technology offer a two-year diploma program in emergency medical technology — paramedic. The two programs produced 39 graduates in 1989–90. Alberta Vocational College — Lac La Biche and the Southern Alberta Institute of Technology each offer a program (of varying lengths) in emergency medical technology — ambulance. The two programs produced 169 graduates in 1989–90.

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1 Source: Emergency Medical Technicians Committee (Paramedic and Ambulance), Alberta Health Disciplines Board. Number of EMTs registered with the Board and residing in Alberta as of December 31, 1988.

2 Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of February 15, 1990.

3 Source: Alberta Prehospital Professions Association. Number of active emergency medical technicians (Paramedic and Ambulance) registered with the APPA and residing in Alberta as of December 31, 1990.

4 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Table 3
Educational Programs for Emergency Medical Technicians in Alberta[1]

	1987–88	1988–89	1989–90
A. EMT — Paramedic Technology Diploma			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	19	17	20
2nd Year	20	20	20
Graduates:	15	27	18
Southern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	21	31	22
2nd Year	32	19	25
Graduates:	24	14	21
Provincial Total			
Number of Training Programs: 2			
Graduates:	39	41	39
B. EMT — Ambulance Technology			
Certificate			
Alberta Vocational College — Lac La Biche			
(Program Length: Approx. 200 hours)			
Enrolments:			
1st Year	82	66	93
Graduates:	47	42	83[2]
Southern Alberta Institute of Technology			
(Program Length: Approx. 250–300 hours)			
Enrolments:			
1st Year	305	194	212
Graduates:	43	145	86
Provincial Total			
Number of Training Programs: 2			
Graduates:	90	187	169

1 Source: **Alberta Health and Social Service Education Progra.. ı Inventory**. Edm. ton, Alberta: Department of Advanced Education, December 1990.

2 Graduate figures include students awarded the Wilderness Medical Technician and Emergency Medical Technician Certificates. The former has not been issued since February 1987.

Health Record Administrators

I. Overview

Definition: Compile and maintain medical records and statistics of hospital and clinic patients. Review clinical records for completeness and contact medical personnel to obtain missing data. Code, index and file records of diagnoses, diseases and treatments. Compile statistics such as reports on admissions, births, deaths, transfers and discharges. Release medical information to staff and authorized government agencies, insurance companies, physicians, hospitals and medical information and research centres. May brief and transcribe records. May testify in court to authenticate medical records.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

The survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information because data from the professional association represents both health record administrators and technicians.

There were 156 health record administrators practising in Alberta in 1990.[1] Sixty-seven percent of these individuals were employed in acute care hospitals.[2] Health record administrators employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 54 percent of the total. The provincial health record administrator-to-population ratio was 1:15,844 in 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Alberta Health Record Association
P.O. Box 1752
Edmonton, Alberta
T5J 2P1

President: Ms. Una Keziere

c) Legislation:

There is no legislation regulating health record administrators in Alberta. The professional association applied for designation under the Health Disciplines Act. However, the Health Disciplines Board determined there was insufficient evidence of risk to the public to warrant regulation.

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Health Record Administrators, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	2	57,200	1:28,600
2 (Lethbridge)	8	117,000	1:14,625
3 (Pincher Creek)	2	36,600	1:18,300
4 (Hanna)	1	12,000	1:12,000
5 (Drumheller)	2	39,200	1:19,600
6 (Calgary excluding CMA)	1	49,000	1:49,000
7 (Stettler)	4	39,200	1:9,800
8 (Red Deer)	6	124,000	1:20,667
9 (Rocky Mountain House)	1	16,300	1:16,300
10 (Camrose)	10	76,600	1:7,660
11 (Edmonton excluding CMA)	2	26,500	1:13,250
12 (Bonnyville)	6	44,900	1:7,483
13 (Whitecourt)	6	56,200	1:9,367
14 (Hinton)	0	25,700	—
15 (Banff)	1	26,000	1:26,000
16 (Fort McMurray)	3	47,800	1:15,933
17 (High Level)	8	50,100	1:6,263
18 (Grande Cache)	1	13,900	1:13,900
19 (Grande Prairie)	8	73,400	1:9,175
Census Metropolitan Area (CMA) of Calgary	26	721,200	1:27,738
Census Metropolitan Area (CMA) of Edmonton	58	818,600	1:14,114
Provincial Total	**156**	**2,471,600[3]**	**1:15,844**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Health Record Administrators, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	26	721,200	1:27,738
Census Metropolitan Area (CMA) of Edmonton	58	818,600	1:14,114
10,000 to 69,999			
Camrose	2	13,400	1:6,700
Fort McMurray	0	33,740	—
Grande Prairie	2	27,560	1:13,780
Hinton	0	10,070	—
Lethbridge	3	60,900	1:20,300
Medicine Hat	1	42,930	1:42,930
Red Deer	2	56,920	1:28,460
Wetaskiwin	2	10,200	1:5,100
4,900 to 9,999			
Banff	1	6,920	1:6,920
Bonnyville	1	5,170	1:5,170
Brooks	2	9,340	1:4,670
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	1	6,710	1:6,710
Edson	0	7,530	—
High River	0	5,750	—
Innisfail	1	5,750	1:5,750
Lacombe	1	6,470	1:6,470
Lloydminster	3	9,600	1:3,200
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	1	6,640	1:6,640
Ponoka	2	5,850	1:2,925
Rocky Mountain House	1	5,350	1:5,350
Slave Lake	2	5,930	1:2,965
St. Paul	3	4,900	1:1,633
Stettler	1	4,950	1:4,950
Taber	1	6,310	1:6,310
Vegreville	1	5,030	1:5,030
Whitecourt	2	6,690	1:3,345
Under 4,900	36	532,480	1:14,791
Provincial Total	**156**	**2,471,600**	**1:15,844**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Health Record Administrators in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	135	140	156
% Change in Number of Practising Personnel	-9.4%	3.7%	11.4%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:17,694	1:17,307	1:15,844

IV. Educational Programs

The Northern Alberta Institute of Technology offers a two-year health records administration diploma program. The program produced 16 graduates in 1989–90.

Table 3
Educational Program for Health Record Administrators in Alberta[3]

	1987–88	1988–89	1989–90
Health Record Administration Diploma			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	17	17	17
2nd Year	14	12	15
Graduates:	15	13	16

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991**. Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

Health Record Technicians

I. Overview

Definition: Assist health record administrators, carry out many technical activities within the medical record department, typing medical information, preparing statistical reports, reviewing medical records, supervising clerical personnel, working with doctors, nurses and other health professionals on medical research projects.

(Source: **Health Manpower Provincial Report, Manitoba, 1982**. Winnipeg, Manitoba: Manitoba Department of Health, 1982)

The survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information because data from the professional association represents both health record administrators and technicians.

There were 356 health record technicians practising in Alberta in 1990.[1] Of these, 78 percent were employed in acute care hospitals.[2] Health record technicians employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 54 percent of the total. The provincial health record technician-to-population ratio was 1:6,943 in 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Alberta Health Record Association
P.O. Box 1752
Edmonton, Alberta
T5J 2P1

President: Ms. Una Keziere

c) Legislation:

There is no legislation regulating health record technicians in Alberta. The professional association applied for designation and regulation under the Health Disciplines Act. However, the Health Disciplines Board determined there was insufficient evidence of risk to the public to warrant regulation.

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Health Record Technicians, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	9	57,200	1:6,356
2 (Lethbridge)	16	117,000	1:7,313
3 (Pincher Creek)	5	36,600	1:7,320
4 (Hanna)	5	12,000	1:2,400
5 (Drumheller)	6	39,200	1:6,533
6 (Calgary excluding CMA)	4	49,000	1:12,250
7 (Stettler)	11	39,200	1:3,564
8 (Red Deer)	24	124,000	1:5,167
9 (Rocky Mountain House)	3	16,300	1:5,433
10 (Camrose)	19	76,600	1:4,032
11 (Edmonton excluding CMA)	5	26,500	1:5,300
12 (Bonnyville)	14	44,900	1:3,207
13 (Whitecourt)	11	56,200	1:5,109
14 (Hinton)	8	25,700	1:3,213
15 (Banff)	5	26,000	1:5,200
16 (Fort McMurray)	4	47,800	1:11,950
17 (High Level)	4	50,100	1:12,525
18 (Grande Cache)	2	13,900	1:6,950
19 (Grande Prairie)	8	73,400	1:9,175
Census Metropolitan Area (CMA) of Calgary	90	721,200	1:8,013
Census Metropolitan Area (CMA) of Edmonton	103	818,600	1:7,948
Provincial Total	**356**	**2,471,600[3]**	**1:6,943**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Health Record Technicians, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	90	721,200	1:8,013
Census Metropolitan Area (CMA) of Edmonton	103	818,600	1:7,948
10,000 to 69,999			
Camrose	5	13,400	1:2,680
Fort McMurray	1	33,740	1:33,740
Grande Prairie	1	27,560	1:27,560
Hinton	2	10,070	1:5,035
Lethbridge	9	60,900	1:6,767
Medicine Hat	9	42,930	1:4,770
Red Deer	11	56,920	1:5,175
Wetaskiwin	5	10,200	1:2,040
4,900 to 9,999			
Banff	1	6,920	1:6,920
Bonnyville	1	5,170	1:5,170
Brooks	0	9,340	—
Canmore	1	5,320	1:5,320
Coaldale	1	5,230	1:5,230
Crowsnest Pass	2	6,550	1:3,275
Drumheller	0	6,710	—
Edson	6	7,530	1:1,255
High River	0	5,750	—
Innisfail	2	5,750	1:2,875
Lacombe	1	6,470	1:6,470
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	1	6,640	1:6,640
Ponoka	5	5,850	1:1,170
Rocky Mountain House	3	5,350	1:1,783
Slave Lake	1	5,930	1:5,930
St. Paul	1	4,900	1:4,900
Stettler	1	4,950	1:4,950
Taber	2	6,310	1:3,155
Vegreville	1	5,030	1:5,030
Whitecourt	0	6,6[illegible]	—
Under 4,900	90	532,480	1:5,916
Provincial Total	**356**	**2,471,600**	**1:6,943**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Health Record Technicians in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	347	355	356
% Change in Number of Practising Personnel	18.4%	2.3%	0.3%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:6,884	1:6,825	1:6,943

IV. Educational Programs

The Southern Alberta Institute of Technology (SAIT) offers a 12-month health record technician certificate program. The program produced 23 graduates in 1989–90.

Table 3
Educational Program for Health Record Technicians in Alberta[3]

	1987–88	1988–89	1989–90
Health Record Technician Certificate			
Southern Alberta Institute of Technology			
(Program Length: 12 months)			
Enrolments:	25	27	27
Graduates:	13	17	23

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991**. Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

Licensed Practical Nurses

I. Overview

Definition: Provide nursing care for patients in hospitals, nursing homes, clinics and similar establishments. Take and record blood pressure, temperature, pulse and respiration rates. Apply dressings and administer injections, medications and treatments under supervision.[1] Report and record observations and symptoms indicative of change in condition of patients. Assist with admission and discharge of patients. Bathe patients, make beds and assist with rehabilitation procedures. Feed and assist patients in feeding themselves. Answer call-bells and patients' or visitors' inquiries and perform other bedside services. Perform duties in operating room, outpatients and other specialized areas, if required.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

In 1977, certified nursing aides and registered nursing orderlies were renamed registered nursing assistants in accordance with the Nursing Assistants Registration Act of 1976. Nursing assistants were designated under the Health Disciplines Act in 1987. In December 1990 the Nursing Assistants Regulation (Alta. Reg. 306/86) was amended to include the use of the title "licensed practical nurse" (L.P.N.).

There were 6,488 practical nurses who resided in Alberta and registered with the Professional Council of Licensed Practical Nurses (PCLPN) in 1990.[2] According to a workforce survey conducted by the Alberta Health and Social Services Disciplines Committee, there were 4,668 licensed practical nurses employed as of March 31, 1990.[3] Based on registration data however, the licensed practical nurse-to-population ratio was 1:381 in Alberta in 1990.

II. Professional Association and Legislation Information

a) Professional Association/Registration Authority:

Professional Council of Licensed Practical Nurses
10604 – 170 Street
Edmonton, Alberta
T5S 1P3

Executive Director/Registrar: Ms. Pat Fredrickson
President: Mr. Wayne Siewert

b) Legislation:

Since January 1, 1987, nursing assistants have been regulated under the Health Disciplines Act. Under this Act, the Professional Council of Licensed Practical Nurses is designated as the body responsible for registration and professional conduct of its members. The Health Disciplines Board is responsible for setting educational qualifications for registration purposes. Under the authority of the Health Disciplines Act, all individuals who wish to use the title "licensed practical nurse," "registered nursing assistant" or "registered nursing orderly" must register with the Council.

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1 Alberta Legislation only permits nursing assistants who have received supplementary training in the administration of medicine to administer oral medications other than narcotics, and prohibits them from giving injections.

2 Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of December 31, 1990.

3 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Licensed Practical Nurses, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	175	57,200	1:327
2 (Lethbridge)	308	117,000	1:380
3 (Pincher Creek)	164	36,600	1:223
4 (Hanna)	85	12,000	1:141
5 (Drumheller)	141	39,200	1:278
6 (Calgary excluding CMA)	189	49,000	1:259
7 (Stettler)	219	39,200	1:179
8 (Red Deer)	311	124,000	1:399
9 (Rocky Mountain House)	38	16,300	1:429
10 (Camrose)	308	76,600	1:249
11 (Edmonton excluding CMA)	97	26,500	1:273
12 (Bonnyville)	155	44,900	1:290
13 (Whitecourt)	176	56,200	1:319
14 (Hinton)	48	25,700	1:535
15 (Banff)	89	26,000	1:292
16 (Fort McMurray)	51	47,800	1:937
17 (High Level)	126	50,100	1:398
18 (Grande Cache)	38	13,900	1:366
19 (Grande Prairie)	355	73,400	1:207
Census Metropolitan Area (CMA) of Calgary	1,261	721,200	1:572
Census Metropolitan Area (CMA) of Edmonton	2,145	818,600	1:382
Location Unknown	9	—	—
Provincial Total	**6,488**	**2,471,600[3]**	**1:381**

1 Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of December 31, 1990.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Licensed Practical Nurses, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	1,261	721,200	1:572
Census Metropolitan Area (CMA) of Edmonton	2,145	818,600	1:382
10,000 to 69,999			
Camrose	68	13,400	1:197
Fort McMurray	24	33,740	1:1,406
Grande Prairie	151	27,560	1:183
Hinton	17	10,070	1:592
Lethbridge	142	60,900	1:429
Medicine Hat	148	42,930	1:290
Red Deer	128	56,920	1:445
Wetaskiwin	65	10,200	1:157
4,900 to 9,999			
Banff	8	6,920	1:865
Bonnyville	30	5,170	1:172
Brooks	39	9,340	1:239
Canmore	17	5,320	1:313
Coaldale	15	5,230	1:349
Crowsnest Pass	54	6,550	1:121
Drumheller	26	6,710	1:258
Edson	21	7,530	1:359
High River	38	5,750	1:151
Innisfail	40	5,750	1:144
Lacombe	19	6,470	1:341
Lloydminster	12	9,600	1:800
Okotoks	21	6,380	1:304
Olds	44	5,230	1:119
Peace River	32	6,640	1:208
Ponoka	43	5,850	1:136
Rocky Mountain House	33	5,350	1:162
Slave Lake	18	5,930	1:329
St. Paul	36	4,900	1:136
Stettler	41	4,950	1:121
Taber	27	6,310	1:234
Vegreville	25	5,030	1:201
Whitecourt	12	6,690	1:558
Under 4,900	1,679	532,480	1:317
Location Unknown	9	—	—
Provincial Total	**6,488**	**2,471,600**	**1:381**

1 Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of December 31, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Licensed Practical Nurses in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel	7,225[1]	6,005[2]	6,488[1]
% Change in Number of Registered Personnel	–2.5%	N/A	7.4%
Population (Alberta)[3]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:331	1:403	1:381

IV. Educational Programs

The Alberta Vocational Colleges (AVC) in Calgary, Edmonton and Lesser Slave Lake offer a practical nurse certificate program which is approximately 10 months in length. The Calgary program includes off-campus instruction at Crowsnest Pass, Drumheller and Claresholm. The Edmonton program also includes off-campus instruction at Athabasca, Beaverlodge, Rocky Mountain House and Wainwright. In 1989–90, there were a total of 239 graduates from these three programs.

A six-month practical nurse refresher program is offered at both AVC — Calgary and AVC — Edmonton. There were 56 graduates in 1989–90 from the two programs.[4]

In addition to the basic and refresher programs, a post-basic course, "Administration of Oral Medications" is being offered through AVC — Edmonton and AVC — Calgary. This is a distance delivery course of 9 to 11 weeks in length designed as part-time study for individuals who are presently employed. This course was offered as a pilot project in 1986. In 1990, there were 265 practical nurses who completed this program.[5]

Another specialist course, "Working with the Aged" is offered through the PCLPN. This is a classroom delivery course of 160 hours (four 40-hour semesters spanned over 15 months). A total of 120 students successfully completed this program in 1990.[6]

In conjunction with AVC — Edmonton and the University of Alberta Hospital, the PCLPN developed the 20-week course "Orthopedic Technician Program." This course provides an opportunity for licensed practical nurses (LPN) to gain the knowledge and skills necessary to become certified as an orthopedic technician. In 1990, 20 students completed this program.[7]

In addition, "Intravenous Therapy" for the LPN, a ten-hour workshop developed and delivered to comply with the licensed practical nurses regulation, is available. The program is designed to update and supplement the LPN with the knowledge and skills required to maintain intravenous therapy in a safe and competent manner. In 1990, 260 practical nurses completed this program.[8]

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1 Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of December 31 of the indicated year.

2 Source: Professional Council of Licensed Practical Nurses. Number of nursing assistants registered with the PCLPN and residing in Alberta as of February 27, 1990.

3 Source: **Alberta Population Growth, First Quarter, 1991**. Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

4 Source: **Alberta Health and Social Service Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

5 Source: Professional Council of Licensed Practical Nurses, December 31, 1990.

6 Ibid.

7 Ibid.

8 Ibid.

Table 3
Educational Programs for Licensed Practical Nurses in Alberta[1]

	1987–88	1988–89	1989–90
Certificate Program			
Alberta Vocational College — Calgary[2] (Program Length: 38 weeks)			
Enrolments:	129	159	170
Graduates:	80	100	117
Alberta Vocational College — Edmonton[3] (Program Length: 38 weeks)			
Enrolments:	140	152	186
Graduates:	99	122	113
Alberta Vocational College — Lesser Slave Lake (Program Length: 38 weeks)			
Enrolments:	—	—	17
Graduates:	—	—	9
Provincial Total			
Number of Training Programs: 3			
Graduates:	179	222	239

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 This program is also offered at the Chinook and Big Country Educational Consortia.

3 The 1988-89 data includes outreach programs at Beaverlodge, Drayton Valley, Wabasca and Grouard. The 1989-90 data includes outreach programs at Athabasca, Beaverlodge, Rocky Mountain House and Wainwright.

Medical Laboratory Technologists

I. Overview

Definition: Perform medical laboratory tests, procedures, experiments and analyses for the diagnosis, treatment and prevention of disease. Conduct chemical analysis of blood, urine, cerebro-spinal and other body fluids to ascertain normal and abnormal constituents. Study blood cells, their numbers, morphological characteristics and coagulation factors related to various physiological and pathological conditions. Prepare tissue sections for microscopic examination using fixation, imbedding, cutting and staining techniques to demonstrate special cellular tissue elements or other characteristics. Study micro-organisms which cause disease and their effect upon the human body, using a variety of microscopic and macroscopic techniques. Perform blood group, type and compatibility tests for transfusion purposes. Investigate responses of body to foreign cells or agents.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Since registration with the Alberta branch of the Canadian Society of Laboratory Technologists is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

There were 2,754 medical laboratory technologists practising in Alberta in 1990.[1] Fifty-four percent of these individuals were employed in acute care hospitals; an additional 36 percent worked in medical laboratories and x-ray facilities.[2] Medical laboratory technologists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 80 percent of the total. The provincial medical laboratory technologist-to-population ratio was 1:897 in 1990.

Some of the basic laboratory services provided by medical laboratory technologists are provided by combined laboratory and x-ray technicians, especially in small rural hospitals (see chapter on Combined Laboratory and X-Ray Technicians).

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta. The number of medical laboratory technologists (2,754) differs from the number of medical laboratory technologists (2,770) reported in **Health and Social Service Workforce in Alberta, 1990** due to an employer reporting error.

2 Ibid.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Alberta Society of Medical Laboratory Technologists
Box 4165
Edmonton, Alberta
T6E 4T2

President: Ms. Margaret Smith
President Elect: Ms. Terry Brent

c) Legislation:

There is no legislation regulating medical laboratory technologists in Alberta at present. However, the professional association applied for designation under the Health Disciplines Act. After completing its investigation, the Health Disciplines Board determined the discipline should be regulated under the Act. Regulation is likely to occur in 1992.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Medical Laboratory Technologists, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	43	57,200	1:1,330
2 (Lethbridge)	112	117,000	1:1,045
3 (Pincher Creek)	14	36,600	1:2,614
4 (Hanna)	2	12,000	1:6,000
5 (Drumheller)	24	39,200	1:1,633
6 (Calgary excluding CMA)	20	49,000	1:2,450
7 (Stettler)	24	39,200	1:1,633
8 (Red Deer)	87	124,000	1:1,425
9 (Rocky Mountain House)	5	16,300	1:3,260
10 (Camrose)	49	76,600	1:1,563
11 (Edmonton excluding CMA)	4	26,500	1:6,625
12 (Bonnyville)	24	44,900	1:1,871
13 (Whitecourt)	23	56,200	1:2,443
14 (Hinton)	15	25,700	1:1,713
15 (Banff)	19	26,000	1:1,368
16 (Fort McMurray)	29	47,800	1:1,648
17 (High Level)	8	50,100	1:6,263
18 (Grande Cache)	10	13,900	1:1,390
19 (Grande Prairie)	51	73,400	1:1,439
Census Metropolitan Area (CMA) of Calgary	918	721,200	1:786
Census Metropolitan Area (CMA) of Edmonton	1,273	818,600	1:643
Provincial Total	**2,754**	**2,471,600[3]**	**1:897**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta. The number of medical laboratory technologists (2,754) differs from the number of medical laboratory technologists (2,770) reported in **Health and Social Service Workforce in Alberta, 1990** due to an employer reporting error.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Medical Laboratory Technologists, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	918	721,200	1:00786
Census Metropolitan Area (CMA) of Edmonton	1,273	818,600	1:00643
10,000 to 69,999			
Camrose	11	13,400	1:1,218
Fort McMurray	22	33,740	1:1,534
Grande Prairie	32	27,560	1:00861
Hinton	9	10,070	1:1,119
Lethbridge	93	60,900	1:00655
Medicine Hat	42	42,930	1:1,022
Red Deer	73	56,920	1:00780
Wetaskiwin	4	10,200	1:2,550
4,900 to 9,999			
Banff	6	6,920	1:1,153
Bonnyville	6	5,170	1:862
Brooks	7	9,340	1:1,334
Canmore	6	5,320	1:887
Coaldale	1	5,230	1:5,230
Crowsnest Pass	5	6,550	1:1,310
Drumheller	8	6,710	1:839
Edson	6	7,530	1:1,255
High River	8	5,750	1:719
Innisfail	0	5,750	—
Lacombe	5	6,470	1:1,294
Lloydminster	11	9,600	1:873
Okotoks	0	6,380	—
Olds	5	5,230	1:1,046
Peace River	6	6,640	1:1,107
Ponoka	6	5,850	1:975
Rocky Mountain House	5	5,350	1:1,070
Slave Lake	0	5,930	—
St. Paul	7	4,900	1:700
Stettler	4	4,950	1:1,238
Taber	10	6,310	1:631
Vegreville	7	5,030	1:719
Whitecourt	3	6,690	1:2,230
Under 4,900	155	532,480	1:3,435
Provincial Total	**2,754**	**2,471,600**	**1:897**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta. The number of medical laboratory technologists (2,754) differs from the number of medical laboratory technologists (2,770) reported in **Health and Social Service Workforce in Alberta, 1990** due to an employer reporting error.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Medical Laboratory Technologists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	2,408	2,563	2,754
% Change in Number of Practising Personnel	5.0%	6.4%	7.4%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio:			
— Alberta	1:992	1:945	1:897
— Western Canada[3]	1:1,067	1:1,044	—

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta. The number of medical laboratory technologists (2,754) differs from the number of medical laboratory technologists (2,770) reported in **Health and Social Service Workforce in Alberta, 1990** due to an employer reporting error.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: Ratios for the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined derived from, **Health Personnel in Canada — 1989.** Ottawa, Ontario: Department of National Health and Welfare, March 1991.

IV. Educational Programs

Both the Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology, in cooperation with a number of hospitals in Edmonton, Calgary, Red Deer and Lethbridge, offer a two-year medical laboratory technology diploma program. Together, the two programs produced 105 graduates in 1989–90. In addition, the University of Alberta offers a four-year bachelor of science program in medical laboratory science. This program produced 20 graduates in 1989–90.

Table 3
Educational Programs for Medical Laboratory Technologists in Alberta[1]

	1987–88	1988–89	1989–90
A. Diploma Programs			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	77	73	72
2nd Year	64	68	62
Graduates:	61	67	60
Southern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	48	47	46
2nd Year	50	40	45
Graduates:	48	40	45
Provincial Total			
Number of Training Programs: 2			
Graduates:	109	107	105
B. Baccalaureate Program			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year	35	36	34
2nd Year	26	26	26
3rd Year	22	25	22
4th Year	23	20	21
Graduates:	23	20	20

[1] Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

Medical Radiation Technologists

I. Overview

Definition: **Radiographic Technologists**

Operate radiography equipment to produce pictures of body structures for diagnostic purposes. Explain treatment and reassure patients. Prepare drugs and chemicals for radiologist. Position patient according to part of body being x-rayed. Affix shields to protect unaffected areas of patient from radiation. Adjust equipment controls to collimate beam, to regulate length and intensity of x-ray exposure and to expose film. Process and prepare films for interpretation by radiologist. Assist radiologist in fluoroscopy, cinefluoroscopy and other diagnostic procedures. Operate radiography equipment in operating theatre or other specialized area to assist physician or surgeon.

Radiation Oncology Technologists

Administer radiation treatment to patients as prescribed by radiation oncologist. Explain treatment and reassure patients. Position patient according to part of body being treated. Affix shields to protect unaffected areas of patient from radiation. Adjust equipment controls to collimate beam. Observe patient through window or on closed circuit television during treatment. Notify radiation oncologist if medical problems arise. Assist clinical physicist to prepare patient's treatment plan according to radiation oncologist's prescription. Process or assist in preparation of sealed radioactive substances for surface application or insertion into body cavities.

Nuclear Medicine Technologists

Prepare radioactive solutions and reagents and operate scanning equipment for diagnostic purposes. Perform assays and quality-control tests on radioactive materials. Calculate doses to be administered by physician. Position patient and calibrate scanning equipment. Operate radiation-scanning equipment to produce photographic image of irradiated area. Calculate blood volume and red-cell survival, using geiger counter, electroscope, scaler, scintillation and position scanner and scintogram.

Monitor oscilloscope images and study photographic images to determine if further scanning is required. Perform radioisotope scanning of pathological specimens and blood samples.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Medical radiation technologists have been regulated under the Health Disciplines Act since January 1, 1986. Beginning in February 1988, the professional association assumed responsibility for registration and discipline of its members.

There were 1,293 medical radiation technologists registered with the Alberta Association of Medical Radiation Technologists in 1990. Of these, 1,109 were radiographic technologists, 102 were nuclear medicine technologists and 75 were radiation oncology technologists. Seven individuals were qualified in more than one specialty.[1] Medical radiation technologists in the Census Metropolitan Areas of Calgary and Edmonton accounted for 73 percent of the total. All radiation oncology technologists are employed in Edmonton or Calgary at the Cross Cancer Institute or the Tom Baker Cancer Centre. The provincial personnel-to-population ratio was 1:1,912 in 1990.

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1 Source: Alberta Association of Medical Radiation Technologists. Number of medical radiation technologists registered with the Association and residing in Alberta as of December 31, 1990.

Some of the basic x-ray services performed by medical radiation technologists are provided by combined laboratory and x-ray technicians, especially in small rural hospitals (see chapter on Combined Laboratory and X-Ray Technicians).

II. Professional Association and Legislation Information

a) Professional Association/Registration Board:

Alberta Association of Medical Radiation Technologists
Suite #1, 2nd Floor
2210 – 39 Street North
Lethbridge, Alberta
T1H 5J2

President: Ms. Jane Wiggins

b) Legislation:

Regulations under the Health Disciplines Act set educational standards for registration and procedures for discipline of medical radiation technologists. These regulations also reserve the titles "medical radiation technologist," "nuclear medicine technologist," "radiation oncology technologist" and "radiographic technologist" for individuals registered under the Act. The Alberta Association of Medical Radiation Technologists is responsible for registration and investigation of complaints against members.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Medical Radiation Technologists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	17	57,200	1:3,365
2 (Lethbridge)	63	117,000	1:1,857
3 (Pincher Creek)	13	36,600	1:2,815
4 (Hanna)	2	12,000	1:6,000
5 (Drumheller)	10	39,200	1:3,920
6 (Calgary excluding CMA)	21	49,000	1:2,333
7 (Stettler)	17	39,200	1:2,306
8 (Red Deer)	51	124,000	1:2,431
9 (Rocky Mountain House)	6	16,300	1:2,717
10 (Camrose)	33	76,600	1:2,321
11 (Edmonton excluding CMA)	8	26,500	1:3,313
12 (Bonnyville)	12	44,900	1:3,742
13 (Whitecourt)	13	56,200	1:4,323
14 (Hinton)	9	25,700	1:2,856
15 (Banff)	10	26,000	1:2,600
16 (Fort McMurray)	18	47,800	1:2,656
17 (High Level)	9	50,100	1:5,567
18 (Grande Cache)	7	13,900	1:1,986
19 (Grande Prairie)	30	73,400	1:2,447
Census Metropolitan Area (CMA) of Calgary	396	721,200	1:1,821
Census Metropolitan Area (CMA) of Edmonton	543	818,600	1:1,508
Location Unknown	5	—	—
Provincial Total	**1,293**	**2,471,600[3]**	**1:1,912**

1 Source: Alberta Association of Medical Radiation Technologists. Number of medical radiation technologists registered with the Association and residing in Alberta as of December 31, 1990.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Medical Radiation Technologists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	396	721,200	1:1,821
Census Metropolitan Area (CMA) of Edmonton	543	818,600	1:1,508
10,000 to 69,999			
Camrose	8	13,400	1:1,675
Fort McMurray	15	33,740	1:2,249
Grande Prairie	17	27,560	1:1,621
Hinton	5	10,070	1:2,014
Lethbridge	46	60,900	1:1,324
Medicine Hat	17	42,930	1:2,525
Red Deer	39	56,920	1:1,459
Wetaskiwin	5	10,200	1:2,040
4,900 to 9,999			
Banff	4	6,920	1:1,730
Bonnyville	3	5,170	1:1,723
Brooks	6	9,340	1:1,557
Canmore	2	5,320	1:2,660
Coaldale	3	5,230	1:1,743
Crowsnest Pass	2	6,550	1:3,275
Drumheller	4	6,710	1:1,678
Edson	4	7,530	1:1,883
High River	7	5,750	1:821
Innisfail	4	5,750	1:1,438
Lacombe	2	6,470	1:3,235
Lloydminster	3	9,600	1:3,200
Okotoks	5	6,380	1:1,276
Olds	5	5,230	1:1,046
Peace River	4	6,640	1:1,660
Ponoka	3	5,850	1:1,950
Rocky Mountain House	4	5,350	1:1,338
Slave Lake	2	5,930	1:2,965
St. Paul	4	4,900	1:1,225
Stettler	5	4,950	1:990
Taber	5	6,310	1:1,262
Vegreville	3	5,030	1:1,677
Whitecourt	3	6,690	1:2,230
Under 4,900	110	532,480	1:4,841
Location Unknown	5	—	—
Provincial Total	**1,293**	**2,471,600**	**1:1,912**

1 Source: Alberta Association of Medical Radiation Technologists. Number of medical radiation technologists registered with the Association and residing in Alberta as of December 31, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Medical Radiation Technologists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	1,263	1,268	1,293
% Change in Number of Registered Personnel	N/A	0.4%	2.0%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:1,891	1:1,911	1:1,912

IV. Educational Programs

Medical radiation technologists are trained in one of three areas: radiography (medical x-ray technology), radiation therapy (oncology), and nuclear medical technology.

Radiography: Seven training hospitals in Calgary, Edmonton and Red Deer, in conjunction with the Northern Alberta Institute of Technology, offer a two-year medical x-ray technology diploma program. There were 44 graduates in 1989–90.

Radiation Therapy: A 27-month program is offered at the Cross Cancer Institute in Edmonton and the Tom Baker Cancer Centre in Calgary. These programs produced 9 graduates in 1989–90.

Nuclear Medical Technology: A two-year program is offered by the Southern Alberta Institute of Technology in conjunction with the University of Alberta Hospitals in Edmonton and the Foothills Hospital in Calgary. The program produced 15 graduates in 1989–90.

1 Source: Alberta Association of Medical Radiation Technologists. Number of medical radiation technologists registered with the Association and residing in Alberta as of December 31 of the indicated year.

2 Source: Alberta Population Growth, First Quarter, 1991. Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Table 3
Educational Programs for Medical Radiation Technologists in Alberta[1]

	1987–88	1988–89	1989–90
A. Medical X-Ray Technology Diploma			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	48	48	49
2nd Year	45	46	46
Graduates:	47	45	44
B. Radiation Oncology Technology Diploma			
Cross Cancer Institute			
(Program Length: 27 months)			
Enrolments:			
1st Year	6	5	6
2nd Year	2	6	5
Graduates:	3	2	5
Tom Baker Cancer Centre			
(Program Length: 27 months)			
Enrolments:			
1st Year	4	4	2
2nd Year	5	4	4
Graduates:	7	—	4
Provincial Total			
Number of Programs in Radiation Oncology: 2			
Graduates:	10	2	9
C. Nuclear Medical Technology Diploma			
Southern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	16	15	16
2nd Year	11	15	15
Graduates:	10	10	15

[1] Source: Alberta Health and Social Services Education Programs Inventory. Edmonton, Alberta: Department of Advanced Education, December 1990.

Occupational Hygienists and Occupational Hygiene Technologists

1. Overview

Definition: **Occupational Hygienists**

Study, evaluate and conduct health programs to control those environmental factors or stresses arising in a work situation which may cause sickness, injury or significant discomfort and inefficiency among workers. Collect, measure and analyze samples of dust, gases, vapors and other potentially toxic materials to determine adherence to prescribed standards. Investigate adequacy of ventilation, exhaust equipment, lighting and other conditions which may affect employee health. Perform sound-level evaluations to determine relationship of noise to employee discomfort and efficiency. Collaborate with other scientists and engineers to institute control and remedial measures for potentially hazardous conditions and equipment. Prepare reports, and make recommendations for control and correction of hazards. Participate in educational meetings to instruct employees in matters pertaining to occupational health. Supervise and co-ordinate the work of technologists and technicians.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Occupational Hygiene Technologists

Under the supervision of occupational hygienists, study, evaluate and conduct health programs to control those environmental factors or stresses arising in a work situation which may cause sickness, injury or significant discomfort and inefficiency among workers. Collect, measure and analyze samples of dust, gases, vapors and other potentially toxic materials to determine adherence to prescribed standards. Investigate adequacy of ventilation, exhaust equipment, lighting and other conditions which may affect employee health. Perform sound-level evaluations to determine relationship of noise to employee discomfort and efficiency. Collaborate with other scientists and engineers to institute control and correction of hazards. Participate in education meetings to instruct employees in matters pertaining to occupational health.

(Source: Department of Health, Government of Alberta)

Since registration with the Alberta section of the American Industrial Hygiene Association is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were a total of 116 occupational hygienists and occupational hygiene technologists practising in Alberta in 1990.[1] Occupational hygienists and occupational hygiene technologists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 88 percent of the total. The provincial occupational hygienist and occupational hygiene technologist-to-population ratio was 1:21,307 in 1990.

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) **Licensing, Registration, or Certification Authority:**

None

b) **Professional Association:**

American Industrial Hygiene Association (Alberta Section)
P.O. Box 1803, Station "M"
Calgary, Alberta
T2P 2L8

President: Mr. Dan Clarke
President Elect: Mr. Bernard Bradford

c) **Legislation:**

There is no legislation regulating occupational hygienists or occupational hygiene technologists in Alberta at present.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Occupational Hygienists and Occupational Hygiene Technologists, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	0	57,200	—
2 (Lethbridge)	1	117,000	1:117,000
3 (Pincher Creek)	0	36,600	—
4 (Hanna)	0	12,000	—
5 (Drumheller)	0	39,200	—
6 (Calgary excluding CMA)	0	49,000	—
7 (Stettler)	0	39,200	—
8 (Red Deer)	5	124,000	1:24,800
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	0	76,600	—
11 (Edmonton excluding CMA)	0	26,500	—
12 (Bonnyville)	0	44,900	—
13 (Whitecourt)	0	56,200	—
14 (Hinton)	0	25,700	—
15 (Banff)	0	26,000	—
16 (Fort McMurray)	6	47,800	1:7,967
17 (High Level)	1	50,100	1:50,100
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	1	73,400	1:73,400
Census Metropolitan Area (CMA) of Calgary	45	721,200	1:16,027
Census Metropolitan Area (CMA) of Edmonton	57	818,600	1:14,361
Provincial Total	**116**	**2,471,600[3]**	**1:21,307**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Occupational Hygienists and Occupational Hygiene Technologists, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	45	721,200	1:16,027
Census Metropolitan Area (CMA) of Edmonton	57	818,600	1:14,361
10,000 to 69,999			
Camrose	0	13,400	—
Fort McMurray	6	33,740	1:5,623
Grande Prairie	1	27,560	1:27,560
Hinton	0	10,070	—
Lethbridge	1	60,900	1:60,900
Medicine Hat	0	42,930	—
Red Deer	5	56,920	1:11,384
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	0	5,750	—
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	0	6,640	—
Ponoka	0	5,850	—
Rocky Mountain House	0	5,350	—
Slave Lake	0	5,930	—
St. Paul	0	4,900	—
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	1	532,480	1:532,480
Provincial Total	**116**	**2,471,600**	**1:21,307**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Occupational Hygienists and Occupational Hygiene Technologists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	113	N/A	116
% Change in Number of Practising Personnel	0.0%	N/A	N/A
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:21,139	N/A	1:21,307

IV. Educational Programs

Mount Royal College offers both a certificate program and a diploma program in occupational hygiene technology. In 1989–90, there was one graduate from the certificate program and eight graduates from the diploma program. Occupational hygienists are graduates of baccalaureate programs in physical or applied science.

Table 3
Educational Program for Occupational Hygiene Technologists in Alberta[3]

	1987–88	1988–89	1989–90
Occupational Hygiene Technology Certificate[4]/Diploma			
Mount Royal College			
Program Length: (Certificate: 1 year) (Diploma: 2 years)			
Enrolments:			
1st Year[5]	26	19	16
2nd Year	6	12	11
Graduates:			
Certificate	2	2	1
Diploma	4	9	8

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta. In 1988 the number of practising personnel reported (113) was comprised of only occupational hygiene technologists.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

4 Certificate program commenced in 1987-88.

5 Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

Occupational Therapists

I. Overview

Definition: Plan and carry out treatment programs based on activities such as work, education and recreation to rehabilitate physically and mentally disabled persons. Administer tests and observe patients to assess their emotional, mental and physical capacities. Plan and direct programs in manual and creative arts, industrial and vocational skills, recreational activities, remedial games, cultural and educational interests and play activities for children. Conduct group programs to assist patients in building self-confidence and in adjusting to family and community. Train handicapped patients in self-care and daily living activities. Advise and instruct patients on specially adapted household equipment and furnishings. Assess patient's vocational potential and provide work adjustment and actual work experience. Participate in testing and training of patients with perceptual motor problems and provide training for children with learning disabilities. Record patient's activities, response and progress. Attend meetings of rehabilitation team and seminars, workshops and courses on occupational therapy. Supervise and instruct occupational therapy students and auxiliary personnel assigned to department.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

The Alberta Association of Registered Occupational Therapists reported there were 581 active occupational therapists registered and residing in Alberta as of December 31, 1990.[1]

According to a survey of health and social service personnel working in Alberta, 54 percent of occupational therapists were employed in acute care hospitals, 14 percent in auxiliary hospitals, eight percent in health units, seven percent in nursing homes and six percent by school boards and in schools for the handicapped.[2] Occupational therapists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 83 percent of the total registered with the Association. The provincial occupational therapist-to-population ratio was 1:4,254 in 1990.

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1 Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of December 31, 1990. Excludes honorary and student members.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Association of Registered
Occupational Therapists
300, 5241 — Calgary Trail Southbound N.W.
Edmonton, Alberta
T6H 5G8

Registrar: Ms. Lorna Reimer
President: Ms. Elizabeth Taylor

b) Legislation:

The Occupational Therapy Profession Act received royal assent in 1987 and was proclaimed in the Spring of 1990 when regulations were approved. The Act grants the Alberta Association of Registered Occupational Therapists the responsibility for registration, practice review and discipline. The Universities Coordinating Council has the authority to approve educational programs, and the examination for registration purposes. In addition, the Council determines equivalencies of programs which have not been approved. The Act reserves the title "occupational therapists," alone or in combination with any other words, for registered members.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Occupational Therapists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	11	57,200	1:5,200
2 (Lethbridge)	8	117,000	1:14,625
3 (Pincher Creek)	2	36,600	1:18,300
4 (Hanna)	1	12,000	1:12,000
5 (Drumheller)	3	39,200	1:13,067
6 (Calgary excluding CMA)	5	49,000	1:9,800
7 (Stettler)	4	39,200	1:9,800
8 (Red Deer)	28	124,000	1:4,429
9 (Rocky Mountain House)	1	16,300	1:16,300
10 (Camrose)	7	76,600	1:10,943
11 (Edmonton excluding CMA)	2	26,500	1:13,250
12 (Bonnyville)	5	44,900	1:8,980
13 (Whitecourt)	1	56,200	1:56,200
14 (Hinton)	0	25,700	—
15 (Banff)	2	26,000	1:13,000
16 (Fort McMurray)	0	47,800	—
17 (High Level)	0	50,100	—
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	21	73,400	1:3,495
Census Metropolitan Area (CMA) of Calgary	178	721,200	1:4,052
Census Metropolitan Area (CMA) of Edmonton	302	818,600	1:2,711
Provincial Total	**581**	**2,471,600[3]**	**1:4,254**

1 Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of December 31, 1990. Excludes honorary and student members.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Occupational Therapists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	178	721,200	1:4,052
Census Metropolitan Area (CMA) of Edmonton	302	818,600	1:2,711
10,000 to 69,999			
Camrose	2	13,400	1:6,700
Fort McMurray	0	33,740	—
Grande Prairie	17	27,560	1:1,621
Hinton	0	10,070	—
Lethbridge	8	60,900	1:7,613
Medicine Hat	9	42,930	1:4,770
Red Deer	17	56,920	1:3,348
Wetaskiwin	2	10,200	1:5,100
4,900 to 9,999			
Banff	1	6,920	1:6,920
Bonnyville	1	5,170	1:5,170
Brooks	0	9,340	—
Canmore	1	5,320	1:5,320
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	1	6,710	1:6,710
Edson	0	7,530	—
High River	2	5,750	1:2,875
Innisfail	0	5,750	—
Lacombe	3	6,470	1:2,157
Lloydminster	1	9,600	1:9,600
Okotoks	1	6,380	1:6,380
Olds	0	5,230	—
Peace River	1	6,640	1:6,640
Ponoka	5	5,850	1:1,170
Rocky Mountain House	1	5,350	1:5,350
Slave Lake	0	5,930	—
St. Paul	2	4,900	1:2,450
Stettler	2	4,950	1:2,475
Taber	0	6,310	—
Vegreville	1	5,030	1:5,030
Whitecourt	0	6,690	—
Under 4,900	23	532,480	1:23,151
Provincial Total	**581**	**2,471,600**	**1:4,254**

1 Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of December 31, 1990. Excludes honorary and student members.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Occupational Therapists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel	425[1]	423[1]	581[2]
% Change in Number of Registered Personnel	N/A	–0.5%	37.4%
Population (Alberta)[3]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:5,620	1:5,728	1:4,254

IV. Educational Programs

A four-year bachelor of science program in occupational therapy is offered at the University of Alberta. In addition to the basic route, an accelerated route was introduced, in 1986–87, for three years. In the accelerated route, entry is made in the third year and studies are completed in 24 continuous months. The program produced 68 graduates in 1989–90. Under an interprovincial training agreement, ten training places per year are reserved for Saskatchewan students in this program.

In addition, a two-year master of science program in occupational therapy commenced at the University of Alberta in 1986–87. The program produced three graduates in 1989–90.

Table 3
Educational Programs for Occupational Therapists in Alberta[4]

	1987–88	1988–89	1989–90
A. Baccalaureate Program			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year		Pre Professional Year	
2nd Year	40	40	41
3rd Year	79	79	40
4th Year	80	77	78
Graduates:	76	77	68
B. Master's Program			
University of Alberta			
(Program Length: 2 years)			
Enrolments:	7	—	10
Graduates:	—	2	3

1 Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of January 31 of the indicated year. Excludes honorary and student members.

2 Source: Alberta Association of Registered Occupational Therapists. Number of occupational therapists registered with the Association and residing in Alberta as of December 31, 1990. Excludes honorary and student members.

3 Source: **Alberta Population Growth, First Quarter, 1991**. Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

4 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

Ophthalmic Dispensers

I. Overview

Definition: An ophthalmic dispenser supplies, prepares, or dispenses ophthalmic appliances; interprets prescriptions from ophthalmologists or optometrists in respect of ophthalmic appliances; fits, adjusts and adapts ophthalmic appliances to the needs of the intended wearer in accordance with a prescription from an ophthalmologist or optometrist, or without a prescription where lenses are duplicated with no change in their refractive value.

(Source: The Ophthalmic Dispensers Act, RSA 1980)

There were 459 ophthalmic dispensers who resided in Alberta and registered with the Alberta Guild of Ophthalmic Dispensers in 1990.[1] Ophthalmic dispensers located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 79 percent of the total. The provincial ophthalmic dispenser-to-population ratio was 1:5,385 in 1990.

The services provided by ophthalmic dispensers are also part of the services provided by optometrists. (see chapter on Optometrists).

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[1] Source: Alberta Guild of Ophthalmic Dispensers. Number of ophthalmic dispensers registered with the Alberta Guild of Ophthalmic Dispensers and residing in Alberta as of December 31, 1990.

II. Professional Association and Legislation Information

a) Certification Authority:

Ophthalmic Dispensers Examining Board
c/o Professions and Occupations Bureau
5th Floor, Kensington Place
10011 – 109 Street
Edmonton, Alberta
T5J 3S8

Chairman: Dr. Henry Wyatt

b) Professional Association:

Alberta Guild of Ophthalmic Dispensers
1140, 10830 Jasper Avenue
Edmonton, Alberta
T5J 2B3

Registrar: Mr. D. Whillans
President: Mr. R. D. Jeffries

c) Legislation:

Under the authority of the Ophthalmic Dispensers Act, all individuals who wish to practise as ophthalmic dispensers must apply for and receive a certificate of competency from the Ophthalmic Dispensers Examining Board, a provincial government certification body. The Board sets the educational qualifications and examinations required for obtaining a certificate of competency, or a special certificate of competency to dispense contact lenses. The titles "ophthalmic dispenser," "registered ophthalmic dispenser" and "optical dispenser" are reserved for registered members.

Successful applicants must register with the Alberta Guild of Ophthalmic Dispensers, the professional association. The Alberta Guild of Ophthalmic Dispensers is responsible for regulating the conduct of its members and for maintaining professional discipline.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Ophthalmic Dispensers, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	11	57,200	1:5,200
2 (Lethbridge)	23	117,000	1:5,087
3 (Pincher Creek)	1	36,600	1:36,600
4 (Hanna)	0	12,000	—
5 (Drumheller)	3	39,200	1:13,067
6 (Calgary excluding CMA)	2	49,000	1:24,500
7 (Stettler)	2	39,200	1:19,600
8 (Red Deer)	19	124,000	1:6,526
9 (Rocky Mountain House)	1	16,300	1:16,300
10 (Camrose)	5	76,600	1:15,320
11 (Edmonton excluding CMA)	1	26,500	1:26,500
12 (Bonnyville)	4	44,900	1:11,225
13 (Whitecourt)	2	56,200	1:28,100
14 (Hinton)	2	25,700	1:12,850
15 (Banff)	0	26,000	—
16 (Fort McMurray)	5	47,800	1:9,560
17 (High Level)	2	50,100	1:25,050
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	12	73,400	1:6,117
Census Metropolitan Area (CMA) of Calgary	150	721,200	1:4,808
Census Metropolitan Area (CMA) of Edmonton	214	818,600	1:3,825
Provincial Total	**459**	**2,471,600[3]**	**1:5,385**

1 Source: Alberta Guild of Ophthalmic Dispensers. Number of ophthalmic dispensers registered with the Alberta Guild of Ophthalmic Dispensers and residing in Alberta as of December 31, 1990.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Ophthalmic Dispensers, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	150	721,200	1:4,808
Census Metropolitan Area (CMA) of Edmonton	214	818,600	1:3,825
10,000 to 69,999			
Camrose	2	13,400	1:6,700
Fort McMurray	4	33,740	1:8,435
Grande Prairie	10	27,560	1:2,756
Hinton	0	10,070	—
Lethbridge	21	60,900	1:2,900
Medicine Hat	11	42,930	1:3,903
Red Deer	18	56,920	1:3,162
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	1	9,340	1:9,340
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	2	6,710	1:3,355
Edson	1	7,530	1:7,530
High River	0	5,750	—
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	2	9,600	1:4,800
Okotoks	1	6,380	1:6,380
Olds	1	5,230	1:5,230
Peace River	2	6,640	1:3,320
Ponoka	1	5,850	1:5,850
Rocky Mountain House	1	5,350	1:5,350
Slave Lake	0	5,930	—
St. Paul	3	4,900	1:1,633
Stettler	1	4,950	1:4,950
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	13	532,480	1:40,960
Provincial Total	**459**	**2,471,600**	**1:5,385**

1 Source: Alberta Guild of Ophthalmic Dispensers. Number of ophthalmic dispensers registered with the Alberta Guild of Ophthalmic Dispensers and residing in Alberta as of December 31, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Ophthalmic Dispensers in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	386	419	459
% Change in Number of Registered Personnel	7.5%	8.5%	9.5%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:6,188	1:5,783	1:5,385

IV. Educational Programs

Since 1986, the Northern Alberta Institute of Technology has offered programs for two levels of ophthalmic dispensing: eyeglasses and contact lenses. Individuals enrolled in the courses must serve a two-year apprenticeship in an optical laboratory or dispensary concurrent with their studies. Each course is two years in length and consists of independent study plus lectures in Edmonton and Calgary. The course in eyeglasses is a pre-requisite for the one in contact lenses. Following these courses, individuals must write the examination of the Ophthalmic Dispensers Examining Board. In May 1990, there were 61 graduates from the course in eyeglasses and five from the course in contact lenses.

Table 3
Educational Programs for Ophthalmic Dispensers in Alberta[3]

	1987–88	1988–89	1989–90
Northern Alberta Institute of Technology Eyeglass Dispensing (Program Length: 2 years) Independent Study Enrolments:			
1st Year	73	89	73
2nd Year	71	62	70
Graduates:	55	49	61
Northern Alberta Institute of Technology Contact Lens Dispensing (Program Length: 2 years) Independent Study Enrolments:			
1st Year	9	8	10
2nd Year	1	8	6
Graduates:	1	7	5
Provincial Total Number of Training Programs: 2			
Graduates:	56	56	66

1 Source: Alberta Guild of Ophthalmic Dispensers. Number of ophthalmic dispensers registered with the Alberta Guild of Ophthalmic Dispensers and residing in Alberta as of December 31 of the indicated year.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: Northern Alberta Institute of Technology, Edmonton, June 1991.

Optometrists

I. Overview

Definition: A person engaged in the practice of optometry.

"Practice of optometry" means:

i) the examination of the human eye, its related structures and the human vision system in order to measure, assess, diagnose or refer for consultation or treatment any condition of the human eye, its related structures and the human vision system;

ii) the treatment of conditions of the human eye, its related structures and the human vision system, through the prescribing and dispensing of ophthalmic appliances or other aids, the prescribing and provision of orthoptics or perceptual training and the offering of advice, consultation or counselling.

(Source: Optometry Profession Act, S.A. 1983, Ch. 0-16)

There were 216 optometrists who resided in Alberta and registered with the Alberta Association of Optometrists (AAO) in 1990.[1] Optometrists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 66 percent of the total. Some optometrists in the larger urban centres operate satellite offices in neighboring rural areas and smaller centres throughout the province. Some of the services provided by optometrists, such as the dispensing of ophthalmic appliances, can also be provided by ophthalmic dispensers (see chapter on Ophthalmic Dispensers). The provincial optometrist-to-population ratio was 1:11,443 in 1990.

II. Professional Association and Legislation Information

a) Professional Association/Registration Authority:

Alberta Association of Optometrists
11830 Kingsway Avenue
Edmonton, Alberta
T5C 0X5

Executive Director: Mr. R. Glenn Campbell
President: Dr. Jerry D. Berg
President Elect: Dr. John A. Baker

b) Legislation:

Under the authority of the Optometry Profession Act, all individuals who wish to practise as optometrists and use this title must apply for registration with the Alberta Association of Optometrists (AAO). The academic qualifications required for registration are set out in regulation. The Universities Coordinating Council evaluates educational qualifications and prescribes examinations for registration.

Besides registration, the AAO is also responsible for discipline and practice review of its members.

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[1] Source: Alberta Association of Optometrists. Number of optometrists registered with the AAO and residing in Alberta as of December 31, 1990. Excludes honorary, inactive and retired members.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Optometrists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel to-Population Ratio
1 (Medicine Hat)	4	57,200	1:14,300
2 (Lethbridge)	15	117,000	1:7,800
3 (Pincher Creek)	1	36,600	1:36,600
4 (Hanna)	0	12,000	—
5 (Drumheller)	0	39,200	—
6 (Calgary excluding CMA)	4	49,000	1:12,250
7 (Stettler)	2	39,200	1:19,600
8 (Red Deer)	17	124,000	1:7,294
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	5	76,600	1:15,320
11 (Edmonton excluding CMA)	1	26,500	1:26,500
12 (Bonnyville)	3	44,900	1:14,967
13 (Whitecourt)	5	56,200	1:11,240
14 (Hinton)	1	25,700	1:25,700
15 (Banff)	1	26,000	1:26,000
16 (Fort McMurray)	2	47,800	1:23,900
17 (High Level)	2	50,100	1:25,050
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	10	73,400	1:7,340
Census Metropolitan Area (CMA) of Calgary	70	721,200	1:10,303
Census Metropolitan Area (CMA) of Edmonton	73	818,600	1:11,214
Provincial Total	**216**	**2,471,600[3]**	**1:11,443**

1 Source: Alberta Association of Optometrists. Number of optometrists registered with the AAO and residing in Alberta as of December 31, 1990. Excludes honorary, inactive and retired members.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Optometrists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	70	721,200	1:10,303
Census Metropolitan Area (CMA) of Edmonton	73	818,600	1:11,214
10,000 to 69,999			
Camrose	3	13,400	1:4,467
Fort McMurray	2	33,740	1:16,870
Grande Prairie	6	27,560	1:4,593
Hinton	1	10,070	1:10,070
Lethbridge	12	60,900	1:5,075
Medicine Hat	4	42,930	1:10,733
Red Deer	12	56,920	1:4,743
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	1	6,920	1:6,920
Bonnyville	0	5,170	—
Brooks	1	9,340	1:9,340
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	2	5,750	1:2,875
Innisfail	0	5,750	—
Lacombe	2	6,470	1:3,235
Lloydminster	1	9,600	1:9,600
Okotoks	0	6,380	—
Olds	2	5,230	1:2,615
Peace River	1	6,640	1:6,640
Ponoka	3	5,850	1:1,950
Rocky Mountain House	0	5,350	—
Slave Lake	1	5,930	1:5,930
St. Paul	1	4,900	1:4,900
Stettler	1	4,950	1:4,950
Taber	2	6,310	1:3,155
Vegreville	1	5,030	1:5,030
Whitecourt	2	6,690	1:3,345
Under 4,900	12	532,480	1:44,373
Provincial Total	**216**	**2,471,600**	**1:11,443**

1 Source: Alberta Association of Optometrists. Number of optometrists registered with the AAO and residing in Alberta as of December 31, 1990. Excludes honorary, inactive and retired members.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Optometrists
in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	215	212	216
% Change in Number of Registered Personnel	1.4%	-1.4%	1.9%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratios:			
— Alberta	1:11,110	1:11,429	1:11,442
— Western Canada[3]	1:12,172	1:12,268	—

IV. Educational Programs

There is no training program for optometrists in Alberta. However, since 1976, Alberta, Saskatchewan, and Manitoba have had an inter-provincial training agreement with the School of Optometry at the University of Waterloo and the Government of Ontario. Under this agreement, the three western provinces annually purchase 13 training places (seven places for Alberta; three places for Saskatchewan; and three places for Manitoba) in the four-year program.

In August 1986, the agreement with the University of Waterloo and the Government of Ontario was renewed for a further five-year period. Pre-requisite for admission into the School of Optometry is two years of pre-optometry training (or equivalent courses in the sciences, including physics, mathematics, biology, zoology, chemistry, and psychology). In 1990, Alberta had a total of 20 students enrolled in the four-year training program at the University of Waterloo. Five students graduated in 1989–90.

In addition to the University of Waterloo, a program in optometry is offered in French at the University of Montreal. The Western provinces have no inter-provincial training agreements with the University of Montreal.

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1 Source: Alberta Association of Optometrists. Number of optometrists registered with the AAO and residing in Alberta as of December 31 of the indicated year. Excludes honorary, inactive and retired members.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: Ratios for the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined derived from, **Health Personnel in Canada — 1988.** Ottawa, Ontario: Department of National Health and Welfare, March 1991.

Pharmacists

I. Overview

Definition: Compound and dispense prescribed pharmaceuticals and related preparations. Prepare or supervise preparation of liquid medicines, ointments, powders, pills and other medications. Check prescriptions for overdoses and drug interactions. Weigh, measure and mix drugs and other medicinal compounds and fill bottles and capsules with correct quantity and composition of preparation. Store and preserve biologicals, vaccines, serums and other drugs to prevent deterioration. Dispense medical and surgical products for internal and external use as prescribed. Maintain patient medication profiles and record prescriptions dispensed and poisons and narcotics issued. Order and maintain stock of pharmaceutical supplies. Provide information on uses and effects of medicaments. Sell non-prescription drugs, sick-room supplies, toiletries, cosmetics, lotions and other commercial products.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 2,193 pharmacists who resided in Alberta and registered with the Alberta Pharmaceutical Association (APhA) in 1990.[1] According to a survey of health and social service personnel working in Alberta, 81 percent of pharmacists practised in community pharmacies while most of the remaining 19 percent were employed in hospital settings.[2] Pharmacists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 68 percent of the total. The provincial pharmacist-to-population ratio was 1:1,127 in 1990.

II. Professional Association and Legislation Information

a) Professional Association/Licensing Body:

Alberta Pharmaceutical Association
10615 – 124 Street
Edmonton, Alberta
T5N 1S5

Registrar-Treasurer: Mr. Greg E. Eberhart
President: Mr. Bob Sprague

b) Legislation:

Under the authority of the Pharmaceutical Association Act, all individuals who wish to practise as pharmacists must register with the Alberta Pharmaceutical Association (APhA).

The APhA is responsible for regulating the conduct of its members and for maintaining discipline. The Pharmaceutical Association Act sets the educational qualifications required for registration with the APhA.

A new Pharmaceutical Profession Act was passed at the 1988 spring session of the legislature. This Act will be proclaimed when new regulations are approved, probably in 1991.

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1 Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of January 29, 1991. Excludes inactive and retired members.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 - conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Pharmacists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	55	57,200	1:1,040
2 (Lethbridge)	104	117,000	1:1,125
3 (Pincher Creek)	26	36,600	1:1,408
4 (Hanna)	8	12,000	1:1,500
5 (Drumheller)	30	39,200	1:1,307
6 (Calgary excluding CMA)	29	49,000	1:1,690
7 (Stettler)	30	39,200	1:1,307
8 (Red Deer)	123	124,000	1:1,008
9 (Rocky Mountain House)	7	16,300	1:2,329
10 (Camrose)	62	76,600	1:1,235
11 (Edmonton excluding CMA)	19	26,500	1:1,395
12 (Bonnyville)	34	44,900	1:1,321
13 (Whitecourt)	42	56,200	1:1,338
14 (Hinton)	17	25,700	1:1,512
15 (Banff)	25	26,000	1:1,040
16 (Fort McMurray)	21	47,800	1:2,276
17 (High Level)	14	50,100	1:3,579
18 (Grande Cache)	6	13,900	1:2,317
19 (Grande Prairie)	56	73,400	1:1,311
Census Metropolitan Area (CMA) of Calgary	637	721,200	1:1,132
Census Metropolitan Area (CMA) of Edmonton	848	818,600	1:965
Provincial Total	**2,193**	**2,471,600[3]**	**1:1,127**

1 Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of January 29, 1991. Excludes inactive and retired members.

2 Source: Estimates of population in Alberta as of June 1, 1990 - Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Pharmacists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	637	721,200	1:1,132
Census Metropolitan Area (CMA) of Edmonton	848	818,600	1:965
10,000 to 69,999			
Camrose	20	13,400	1:670
Fort McMurray	15	33,740	1:2,249
Grande Prairie	31	27,560	1:889
Hinton	8	10,070	1:1,259
Lethbridge	67	60,900	1:909
Medicine Hat	48	42,930	1:894
Red Deer	75	56,920	1:759
Wetaskiwin	13	10,200	1:785
4,900 to 9,999			
Banff	3	6,920	1:2,307
Bonnyville	8	5,170	1:646
Brooks	10	9,340	1:934
Canmore	9	5,320	1:591
Coaldale	7	5,230	1:747
Crowsnest Pass	7	6,550	1:936
Drumheller	11	6,710	1:610
Edson	6	7,530	1:1,255
High River	5	5,750	1:1,150
Innisfail	10	5,750	1:575
Lacombe	10	6,470	1:647
Lloydminster	8	9,600	1:1,200
Okotoks	5	6,380	1:1,276
Olds	5	5,230	1:1,046
Peace River	8	6,640	1:830
Ponoka	14	5,850	1:418
Rocky Mountain House	7	5,350	1:764
Slave Lake	3	5,930	1:1,977
St. Paul	10	4,900	1:490
Stettler	9	4,950	1:550
Taber	8	6,310	1:789
Vegreville	6	5,030	1:838
Whitecourt	3	6,690	1:2,230
Under 4,900	259	532,480	1:2,056
Provincial Total	**2,193**	**2,471,600**	**1:1,127**

1 Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of January 29, 1991. Excludes inactive and retired members.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Pharmacists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel	2,078[1]	2,152[1]	2,193[2]
% Change in Number of Registered Personnel	4.9%	3.6%	1.9%
Population (Alberta)[3]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:1,150	1:1,126	1:1,127

IV. Educational Programs

The University of Alberta offers a four-year baccalaureate program in pharmacy. However enrolment into the program is only considered following the completion of a pre-pharmacy year of university. The program produced 101 graduates in 1989–90.

Table 3
Educational Programs for Pharmacists in Alberta[4]

	1987–88	1988–89	1989–90
Baccalaureate Program			
University of Alberta			
(Program Length: 4 years)			
Enrolments:[5]			
1st Year	89	86	112
2nd Year	111	123	85
3rd Year	126	119	131
4th Year	106	104	104
Graduates:	101	103	101

1 Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of December 31 of the indicated year. Excludes inactive and retired members.

2 Source: Alberta Pharmaceutical Association. Number of pharmacists registered with the APhA and residing in Alberta as of January 29, 1991. Excludes inactive and retired members.

3 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

4 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

5 Transfer students with credit for first-year course work have been admitted into year two; hence, the discrepancy in enrolment from year to year.

Pharmacy Assistants

I. Overview

Definition: Assist pharmacist in hospital, industrial or retail pharmacy. Compound and mix ointments, solutions, lotions or other medications, according to specific instructions, under supervision of pharmacist. Pre-package drugs. Label drugs, chemicals or other pharmaceutical preparations. Assist with keeping records of narcotics issued and returned. Count drugs issued, keep inventory and prepare orders for suppliers, as approved by the pharmacist. Unpack and store supplies and verify items received against invoices. Wash and sterilize bottles, beakers and other glassware and utensils. Clean pharmacy work area. Answer inquiries and deliver drug items, if required. Compute charges for narcotics and pharmaceuticals dispensed from pharmacy, if required.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Since there is no professional association for pharmacy assistants, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were 702 pharmacy assistants practising in Alberta in 1990.[1] Of these, 61 percent were employed in community pharmacies and 38 percent in hospital pharmacies.[2] Pharmacy assistants employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 68 percent of the total. The number of pharmacy assistants employed in Alberta increased by 25 percent between 1988 and 1990. During the same period the provincial population grew by 3.5 percent. The provincial pharmacy assistant-to-population ratio was 1:3,521 in 1990.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:
None

b) Legislation:
There is no legislation regulating pharmacy assistants in Alberta at present.

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Pharmacy Assistants, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	18	57,200	1:3,178
2 (Lethbridge)	31	117,000	1:3,774
3 (Pincher Creek)	6	36,600	1:6,100
4 (Hanna)	4	12,000	1:3,000
5 (Drumheller)	3	39,200	1:13,067
6 (Calgary excluding CMA)	4	49,000	1:12,250
7 (Stettler)	18	39,200	1:2,178
8 (Red Deer)	46	124,000	1:2,696
9 (Rocky Mountain House)	4	16,300	1:4,075
10 (Camrose)	19	76,600	1:4,032
11 (Edmonton excluding CMA)	3	26,500	1:8,833
12 (Bonnyville)	5	44,900	1:8,980
13 (Whitecourt)	5	56,200	1:11,240
14 (Hinton)	3	25,700	1:8,567
15 (Banff)	0	26,000	—
16 (Fort McMurray)	12	47,800	1:3,983
17 (High Level)	11	50,100	1:4,555
18 (Grande Cache)	3	13,900	1:4,633
19 (Grande Prairie)	26	73,400	1:2,823
Census Metropolitan Area (CMA) of Calgary	212	721,200	1:3,402
Census Metropolitan Area (CMA) of Edmonton	269	818,600	1:3,043
Provincial Total	**702**	**2,471,600[3]**	**1:3,521**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Pharmacy Assistants, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	212	721,200	1:3,402
Census Metropolitan Area (CMA) of Edmonton	269	818,600	1:3,043
10,000 to 69,999			
Camrose	5	13,400	1:2,680
Fort McMurray	10	33,740	1:3,374
Grande Prairie	20	27,560	1:1,378
Hinton	2	10,070	1:5,035
Lethbridge	24	60,900	1:2,538
Medicine Hat	17	42,930	1:2,525
Red Deer	28	56,920	1:2,033
Wetaskiwin	3	10,200	1:3,400
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	1	5,170	1:5,170
Brooks	4	9,340	1:2,335
Canmore	0	5,320	—
Coaldale	1	5,230	1:5,230
Crowsnest Pass	0	6,550	—
Drumheller	3	6,710	1:2,237
Edson	1	7,530	1:7,530
High River	0	5,750	—
Innisfail	3	5,750	1:1,917
Lacombe	1	6,470	1:6,470
Lloydminster	4	9,600	1:2,400
Okotoks	0	6,380	—
Olds	1	5,230	1:5,230
Peace River	2	6,640	1:3,320
Ponoka	7	5,850	1:836
Rocky Mountain House	4	5,350	1:1,338
Slave Lake	0	5,930	—
St. Paul	2	4,900	1:2,450
Stettler	4	4,950	1:1,238
Taber	1	6,310	1:6,310
Vegreville	3	5,030	1:1,677
Whitecourt	0	6,690	—
Under 4,900	70	532,480	1:7,607
Provincial Total	**702**	**2,471,600**	**1:3,521**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Pharmacy Assistants in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	562	606	702
% Change in Number of Practising Personnel	20.9%	7.8%	15.8%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:4,250	1:3,998	1:3,521

IV. Educational Programs

In 1976, a ten-month program leading to a pharmacy technician certificate was established at Red Deer College. The program produced 42 graduates in 1989–90. Before the program was offered, most pharmacy assistants in Alberta were trained on the job.

Table 3
Educational Program for Pharmacy Assistants in Alberta[3]

	1987–88	1988–89	1989–90
Pharmacy Technician Certificate			
Red Deer College			
(Program Length: 10 months)			
Enrolments:	44	44	45
Graduates:	38	42	42

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Physical Therapists

I. Overview

Definition: Plan and carry out programs of physical treatment, in consultation with physicians and other health care workers, to rehabilitate injured or disabled patients. Administer muscle, nerve, joint and functional ability tests to identify physical problems of patient. Assess patient's symptoms and capabilities. Direct and aid patients individually or in groups, in activities designed to assist in muscle restoration and joint mobility. Guide patient in remedial activities involving use of parallel bars, weights, traction and other equipment. Give whirlpool and contrast baths and apply moist packs. Administer treatments using diathermy, ultrasonic and microwave machines, infra-red and ultra-violet lamps, low-voltage generators and other electrotherapeutic equipment. Instruct patients and their families in procedures to be continued at home. Record treatments given and patient's response and progress.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 1,257 licensed physical therapists who resided in Alberta and registered with the College of Physical Therapists in 1990.[1] According to a survey conducted by the Alberta Health and Social Services Disciplines Committee, 43 percent of the practitioners were employed in acute care hospitals while 38 percent were in private practice.[2] Physical therapists located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 78 percent of the total. The provincial physical therapist-to-population ratio was 1:1,966 in 1990.

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1 Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College of Physical Therapists and residing in Alberta as of December 31, 1990.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

College of Physical Therapists of Alberta
#302, 6020 – 104 Street
Edmonton, Alberta
T6H 5S4

Registrar: Ms. JoAnne Horne
President: Mr. Peter Noel-Bentley

b) Professional Association:

Alberta Physiotherapy Association
5241 Calgary Trail Southbound N.W.
Edmonton, Alberta
T6H 5G8

President: Ms. Nancy Lambert

c) Legislation:

Physical therapists are regulated under the Physical Therapy Profession Act which was proclaimed in 1985. The Act reserves the titles "physical therapist" or "physiotherapist" alone or in combination with other words. In addition, no person except a physical therapist shall use the name "physical therapy" or "physiotherapy" or any abbreviation or in combination with any other word to describe or refer to his practice, occupation, profession or business. Employers may only hire registered members to perform physical therapy services.

The College of Physical Therapists of Alberta is responsible for registration of members, maintaining professional discipline and practice review. The Act sets out the educational requirements for registration. The Universities Coordinating Council evaluates the educational qualifications and determines equivalencies required for registration.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Physical Therapists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	24	57,200	1:2,383
2 (Lethbridge)	36	117,000	1:3,250
3 (Pincher Creek)	11	36,600	1:3,327
4 (Hanna)	2	12,000	1:6,000
5 (Drumheller)	5	39,200	1:7,840
6 (Calgary excluding CMA)	14	49,000	1:3,500
7 (Stettler)	12	39,200	1:3,267
8 (Red Deer)	56	124,000	1:2,214
9 (Rocky Mountain House)	5	16,300	1:3,260
10 (Camrose)	18	76,600	1:4,256
11 (Edmonton excluding CMA)	6	26,500	1:4,417
12 (Bonnyville)	11	44,900	1:4,082
13 (Whitecourt)	12	56,200	1:4,683
14 (Hinton)	8	25,700	1:3,213
15 (Banff)	12	26,000	1:2,167
16 (Fort McMurray)	14	47,800	1:3,414
17 (High Level)	6	50,100	1:8,350
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	28	73,400	1:2,621
Census Metropolitan Area (CMA) of Calgary	439	721,200	1:1,643
Census Metropolitan Area (CMA) of Edmonton	538	818,600	1:1,522
Provincial Total	**1,257**	**2,471,600[3]**	**1:1,966**

1 Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College of Physical Therapists and residing in Alberta as of December 31, 1990.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Physical Therapists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	439	721,200	1:1,643
Census Metropolitan Area (CMA) of Edmonton	538	818,600	1:1,522
10,000 to 69,999			
Camrose	6	13,400	1:2,233
Fort McMurray	13	33,740	1:2,595
Grande Prairie	18	27,560	1:1,531
Hinton	4	10,070	1:2,518
Lethbridge	29	60,900	1:2,100
Medicine Hat	21	42,930	1:2,044
Red Deer	34	56,920	1:1,674
Wetaskiwin	5	10,200	1:2,040
4,900 to 9,999			
Banff	3	6,920	1:2,307
Bonnyville	2	5,170	1:2,585
Brooks	3	9,340	1:3,113
Canmore	6	5,320	1:887
Coaldale	1	5,230	1:5,230
Crowsnest Pass	2	6,550	1:3,275
Drumheller	1	6,710	1:6,710
Edson	4	7,530	1:1,883
High River	3	5,750	1:1,917
Innisfail	3	5,750	1:1,917
Lacombe	4	6,470	1:1,618
Lloydminster	3	9,600	1:3,200
Okotoks	3	6,380	1:2,127
Olds	3	5,230	1:1,743
Peace River	4	6,640	1:1,660
Ponoka	5	5,850	1:1,170
Rocky Mountain House	5	5,350	1:1,070
Slave Lake	1	5,930	1:5,930
St. Paul	2	4,900	1:2,450
Stettler	3	4,950	1:1,650
Taber	0	6,310	—
Vegreville	2	5,030	1:2,515
Whitecourt	4	6,690	1:1,673
Under 4,900	83	532,480	1:6,415
Provincial Total	**1,257**	**2,471,600**	**1:1,966**

1 Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College of Physical Therapists and residing in Alberta as of December 31, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Physical Therapists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel	1,115[1]	1,185[2]	1,257[1]
% Change in Number of Registered Personnel	–1.8%	6.3%	6.1%
Population (Alberta)[3]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:2,142	1:2,045	1:1,966

IV. Educational Programs

The University of Alberta offers a four-year baccalaureate program in physical therapy. The program produced 75 graduates in 1989–90. In addition, the University of Alberta offers a master's degree program in physical therapy which is approximately two years in length. The program produced two graduates in 1989–90.

Table 3
Educational Programs for Physical Therapists in Alberta[4]

	1987–88	1988–89	1989–90
A. Baccalaureate Program			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year	66	66	66
2nd Year	60	62	67
3rd Year	38	60	63
4th Year[5]	54	51	80
Graduates:	47	49	75
B. Master's Program			
University of Alberta			
(Program Length: Approx. 2 years)			
Enrolments:			
1st Year	6	7	6
2nd Year	4	6	5
3rd Year	4	1	2
Graduates:	6	5	2

1 Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College and residing in Alberta as of December 31 of the indicated year.

2 Source: College of Physical Therapists of Alberta. Number of physical therapists registered with the College and residing in Alberta as of May 3, 1990.

3 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

4 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

5 Increases in the fourth year enrolments were due to graduates of the diploma program and diploma graduates from foreign institutions returning to complete the baccalaureate degree program.

Physicians

I. Overview

Definition: The work of physicians is concerned with preventing, diagnosing and treating human illnesses. Activities include: conducting medical examinations, making diagnoses, prescribing and giving treatment for diseases, disorders and injuries of the human body and applying preventive medicine as well as rehabilitative techniques; performing surgical operations in the treatment of injuries, diseases and disorders of the human body and engaging in clinical research within the field of activities and scope of competence.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 4,333 physicians who resided in Alberta and registered with the College of Physicians and Surgeons of Alberta in 1990. Of these, 46 percent specialized in some area of medicine.[1] The number of physicians by specialty is shown in Table 4 of this chapter.

Physicians located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 76 percent of the total. Approximately 11 percent were located in communities with a population of between 10,000 and 70,000, five percent were located in communities with a population of between 4,000 and 10,000, and eight percent were located in communities with a population of less than 4,900. The physician-to-population ratio was 1:570 in Alberta in 1990.

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1 Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1991. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

College of Physicians and Surgeons of Alberta
900 Manulife Place
10180 – 101 Street
Edmonton, Alberta
T5J 4P8

Registrar: Dr. L. R. Ohlhauser
President: Dr. S. M. Malm

b) Professional Association:

Alberta Medical Association
#400, 12230 – 106 Avenue
Edmonton, Alberta
T5N 3Z1

Executive Director: Dr. Robert A. Burns
President: Dr. Raymond M. Hulyk
President Elect: Dr. Robert E. Fraser

c) Legislation:

Under the authority of the Medical Profession Act, all individuals who wish to practise as physicians or osteopaths must be currently registered with the College of Physicians and Surgeons of Alberta.

Besides registration, the College of Physicians and Surgeons of Alberta is responsible for regulating the conduct of physicians and osteopaths and for maintaining professional discipline. The Medical Profession Act sets the basic educational qualifications required for registration with the College. However, the College sets the post-basic educational qualifications required for registration as a medical specialist and also prescribes the conditions of practice of other physicians registered on special registries.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Physicians, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	79	57,200	1:724
2 (Lethbridge)	175	117,000	1:669
3 (Pincher Creek)	40	36,600	1:915
4 (Hanna)	12	12,000	1:1,000
5 (Drumheller)	31	39,200	1:1,265
6 (Calgary excluding CMA)	53	49,000	1:925
7 (Stettler)	30	39,200	1:1,307
8 (Red Deer)	188	124,000	1:660
9 (Rocky Mountain House)	10	16,300	1:1,630
10 (Camrose)	69	76,600	1:1,110
11 (Edmonton excluding CMA)	22	26,500	1:1,205
12 (Bonnyville)	46	44,900	1:976
13 (Whitecourt)	41	56,200	1:1,371
14 (Hinton)	25	25,700	1:1,028
15 (Banff)	39	26,000	1:667
16 (Fort McMurray)	42	47,800	1:1,138
17 (High Level)	32	50,100	1:1,566
18 (Grande Cache)	9	13,900	1:1,544
19 (Grande Prairie)	79	73,400	1:929
Census Metropolitan Area (CMA) of Calgary	1,461	721,200	1:494
Census Metropolitan Area (CMA) of Edmonton	1,850	818,600	1:442
Provincial Total	**4,333**	**2,471,600[3]**	**1:570**

1 Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1991. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Physicians, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	1,461	721,200	1:494
Census Metropolitan Area (CMA) of Edmonton	1,850	818,600	1:442
10,000 to 69,999			
Camrose	18	13,400	1:744
Fort McMurray	34	33,740	1:992
Grande Prairie	49	27,560	1:562
Hinton	15	10,070	1:671
Lethbridge	135	60,900	1:451
Medicine Hat	72	42,930	1:596
Red Deer	120	56,920	1:474
Wetaskiwin	18	10,200	1:567
4,900 to 9,999			
Banff	19	6,920	1:364
Bonnyville	10	5,170	1:517
Brooks	10	9,340	1:934
Canmore	8	5,320	1:665
Coaldale	6	5,230	1:872
Crowsnest Pass	6	6,550	1:1,092
Drumheller	13	6,710	1:516
Edson	9	7,530	1:837
High River	9	5,750	1:639
Innisfail	11	5,750	1:523
Lacombe	12	6,470	1:539
Lloydminster	15	9,600	1:640
Okotoks	10	6,380	1:638
Olds	5	5,230	1:1,046
Peace River	10	6,640	1:664
Ponoka	27	5,850	1:217
Rocky Mountain House	10	5,350	1:535
Slave Lake	7	5,930	1:847
St. Paul	8	4,900	1:613
Stettler	8	4,950	1:619
Taber	7	6,310	1:901
Vegreville	8	5,030	1:629
Whitecourt	6	6,690	1:1,115
Under 4,900	327	532,480	1:1,628
Provincial Total	**4,333**	**2,471,600**	**1:570**

1 Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1991. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Physicians in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	4,092	4,206	4,333
% Change in Number of Registered Personnel	2.2%	2.8%	3.0%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:584	1:576	1:570

IV. Educational Programs

Alberta has two medical schools: one at the University of Alberta in Edmonton, and the other at the University of Calgary. The University of Alberta program is four years in length, based on a nine-month academic year; the University of Calgary program is three years in length, based on a 12-month academic year. Successful completion of a two-year pre-medicine program is the basic entry requirement for both programs. The two programs together produced 190 graduates in 1989–90.

Under the Medical Profession Act, three post-graduate training routes are available for physicians seeking to meet licensure requirements in Alberta. Physicians applying for general licensure must have successfully completed either the certification requirements of a Family Medicine Program approved by the College of Physicians and Surgeons of Alberta, or a two-year pre-licensure training program which meets the requirements specified by the College of Physicians and Surgeons of Alberta. To be licensed as a specialist, the applicant must complete an approved residency training program in an accredited institution and must pass the certification examinations set by the Royal College of Physicians and Surgeons of Canada.

With respect to post-graduate medical training, the Department of Health establishes the number of funded internship/residency positions with the co-operation of the two medical schools. The medical schools, in co-operation with teaching hospitals in Calgary and Edmonton, then apportion the total funded positions among the various medical specialties. During the 1990–91 academic year, 642 full-time-equivalent internship/residency positions in Alberta teaching hospitals were funded by the Department of Health.

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1 Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1989, January 1, 1990, and February 15, 1991. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Table 3
Educational Programs for Physicians in Alberta[1]

	1987–88	1988–89	1989–90
Doctor of Medicine			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year	122	122	121
2nd Year	110	116	126
3rd Year	121	121	121
4th Year	121	105	126
Graduates:	119	103	116
University of Calgary			
(Program Length: 3 years)			
Enrolments:			
1st Year	74	75	72
2nd Year	73	69	77
3rd Year	68	77	68
Graduates:	64	69	74
Provincial Total			
Number of Training Programs: 2			
Graduates:	183	172	190

[1] Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

Table 4
Physicians by Specialty and Personnel-to-Population Ratios by Specialty, Alberta, 1990

Specialty	Number of Physicians[1]	Personnel-to-Population Ratio[2]
Anaesthesia	181	1:13,655
Anatomical Pathology	53	1:46,634
Cardiology	44	1:56,173
Cardiovascular & Thoracic Surgery	18	1:137,311
Clinical Immunology	1	1:2,471,600
Community Medicine	15	1:164,773
Dermatology	25	1:98,864
Diagnostic Radiology	162	1:15,257
Emergency Medicine	40	1:61,790
Endocrinology/Metabolism	12	1:205,967
Gastroenterology	28	1:88,271
General Pathology	62	1:39,865
General Surgery	171	1:14,454
Geriatric Medicine	6	1:411,933
Haematological Pathology	7	1:353,086
Haematology	12	1:205,967
Infectious Diseases	14	1:176,543
Internal Medicine	372	1:6,644
Medical Biochemistry	4	1:617,900
Medical Microbiology	9	1:274,622
Medical Oncology	5	1:494,320
Nephrology	7	1:353,086
Neurology	46	1:53,730
Neuropathology	6	1:411,933
Neurosurgery	17	1:145,388
Nuclear Medicine	12	1:205,967
Obstetrics & Gynaecology	123	1:20,094
Ophthalmology	77	1:32,099
Orthopaedic Surgery	85	1:29,078
Otolaryngology	38	1:65,042
Pediatrics	182	1:13,580
Pediatric Cardiology	2	1:1,235,800
Pediatric General Surgery	4	1:617,900
Pediatric Neurology	1	1:2,471,600
Physical Medicine & Rehabilitation	17	1:145,388
Plastic Surgery	33	1:74,897
Psychiatry	216	1:11,443
Radiation Oncology	24	1:102,983
Respiratory Medicine	31	1:79,729
Rheumatology	18	1:137,311

1 Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1991. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

2 Source: Ratios calculated using a provincial population of 2,471,600 as of June 1, 1990 — Alberta Bureau of Statistics, 1991.

Table 4 continued
Physicians by Specialty and Personnel-to-Population Ratios by Specialty, Alberta, 1990

Specialty	Number of Physicians[1]	Personnel-to-Population Ratio[2]
Urology	37	1:66,800
Vascular Surgery	4	1:617,900
Total — Specialists[3]	1,992	1:1,241
Total — Non-Specialists (Family Physicians, General Practitioners and Others)	2,341	1:1,056
Grand Total	**4,333**	**1:570**

1 Source: College of Physicians and Surgeons of Alberta. Number of physicians registered with the College of Physicians and Surgeons as of February 15, 1991. Excludes out-of-province, retired, and non-practising life members, and members on the courtesy or education registries.

2 Source: Ratios calculated using a provincial population of 2,471,600 as of June 1, 1990 — Alberta Bureau of Statistics, 1991.

3 Note: The total number of specialists is less than the sum of the physicians in each specialty because some practitioners hold more than one specialty.

Podiatrists

I. Overview

Definition: A podiatrist treats ailments, diseased conditions, deformities or injuries of the human foot and the leg muscles controling the foot; examines, diagnoses and treats such ailments, conditions, deformities or injuries but does not treat systemic diseases of bones, muscles or ligaments, or does not use X-ray equipment for purposes other than diagnostic, or does not use anaesthetics other than local.

(Source: Podiatry Act, RSA 1980)

There were 25 podiatrists who resided in Alberta and registered with the Alberta Podiatry Association (APA) in 1990.[1] All were located in five major urban centres: the Census Metropolitan Areas of Calgary and Edmonton, and the cities of Red Deer, Lethbridge and Medicine Hat. The provincial podiatrist-to-population ratio was 1:98,864 in 1990.

1 Source: Alberta Podiatry Association. Number of podiatrists registered with the APA and residing in Alberta as of December 31, 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Board of Examiners in Podiatry
c/o Professions and Occupations Bureau
5th Floor, Kensington Place
10011 – 109 Street
Edmonton, Alberta
T5J 3S8

b) Professional Association:

Alberta Podiatry Association
134 – 8500 MacLeod Trail
Calgary, Alberta
T2H 2N1

President: Dr. Lee Nugent

c) Legislation:

In Alberta, podiatrists are regulated by the Podiatry Act. In accordance with this statute, individuals who wish to practise as podiatrists in Alberta apply to the Board of Examiners in Podiatry, a provincial certification body. The Board sets the educational qualifications required for registration and certifies eligible individuals. Successful candidates register with the Alberta Podiatry Association (APA), the professional body responsible for registration and discipline of its members.

In June 1987, an amendment to the Podiatry Act removed the exclusive scope of practice clause in order to allow other qualified individuals, such as nurses, to offer foot care services. Although the mandatory requirements of the Act have been removed, individuals who wish to practise podiatry and bill services to the provincial health care insurance program are still required to obtain certification through the Board and maintain membership in the Association.

In 1988, the Alberta Podiatry Association applied to the Health Disciplines Board for designation under the Health Disciplines Act. The Alberta Podiatry Association and the College of Physicians and Surgeons are also discussing the possible inclusion of podiatrists in the Medical Profession Act. The Health Disciplines Board's investigation is on hold pending the outcome of these discussions.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Podiatrists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	1	57,200	1:57,200
2 (Lethbridge)	1	117,000	1:117,000
3 (Pincher Creek)	0	36,600	—
4 (Hanna)	0	12,000	—
5 (Drumheller)	0	39,200	—
6 (Calgary excluding CMA)	0	49,000	—
7 (Stettler)	0	39,200	—
8 (Red Deer)	1	124,000	1:124,000
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	0	76,600	—
11 (Edmonton excluding CMA)	0	26,500	—
12 (Bonnyville)	0	44,900	—
13 (Whitecourt)	0	56,200	—
14 (Hinton)	0	25,700	—
15 (Banff)	0	26,000	—
16 (Fort McMurray)	0	47,800	—
17 (High Level)	0	50,100	—
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	0	73,400	—
Census Metropolitan Area (CMA) of Calgary	14	721,200	1:51,514
Census Metropolitan Area (CMA) of Edmonton	8	818,600	1:102,325
Provincial Total	**25**	**2,471,600[3]**	**1:98,864**

1 Source: Alberta Podiatry Association. Number of podiatrists registered with the APA and residing in Alberta as of December 31, 1990.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Podiatrists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	14	721,200	1:51,514
Census Metropolitan Area (CMA) of Edmonton	8	818,600	1:102,325
10,000 to 69,999			
Camrose	0	13,400	—
Fort McMurray	0	33,740	—
Grande Prairie	0	27,560	—
Hinton	0	10,070	—
Lethbridge	1	60,900	1:60,900
Medicine Hat	1	42,930	1:42,930
Red Deer	1	56,920	1:56,920
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	0	5,750	—
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	0	6,640	—
Ponoka	0	5,850	—
Rocky Mountain House	0	5,350	—
Slave Lake	0	5,930	—
St. Paul	0	4,900	—
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	0	532,480	—
Provincial Total	**25**	**2,471,600**	**1:98,864**

1 Source: Alberta Podiatry Association. Number of podiatrists registered with the APA and residing in Alberta as of December 31, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Podiatrists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	24	23	25
% Change in Number of Registered Personnel	14.3%	-4.2%	8.7%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio:			
— Alberta	1:99,529	1:105,348	1:98,864
— Western Canada[3]	1:103,205	1:100,563	—

IV. Educational Programs

There are no training programs for podiatrists in Canada. The United States has seven schools of podiatry. The programs consist of four years of professional training with four prerequisite years of university studies. All of Alberta's podiatrists were trained in the United States.

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1 Source: Alberta Podiatry Association. Number of podiatrists registered with the APA and residing in Alberta as of December 31 of the indicated year.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: Ratios from the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined derived from, **Health Personnel in Canada — 1988.** Ottawa, Ontario: Department of National Health and Welfare, March 1991.

Prosthetists and Orthotists

I. Overview

Definition: Design, build, fit and repair prosthetic and orthotic appliances to correct physical defects of human body. Interpret physician's specifications for prosthesis (artificial limb) or orthosis (support or brace). Measure patient for appliance. Design or draw working sketch or model of prosthesis or orthosis required. Build or direct other workers to build prosthetic or orthotic appliance, using materials, such as plastic, wood, leather, steel, aluminium and padding, and machine and hand-tools. Fit patient with appliance and add or remove padding, adjust parts and change tension to achieve maximum comfort and optimum function. Revise working sketch to reflect changes and direct other workers to modify appliance. Advise patient in application, use and care of appliance. Service and repair appliance as necessary.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

Since registration with the Alberta Association of Prosthetists and Orthotists is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

There were 26 prosthetists and orthotists practising in Alberta in 1990.[1] The majority (92%) were employed in the Census Metropolitan Areas of Calgary and Edmonton. These individuals are employed in acute care hospitals, auxiliary hospitals, community agencies and in private practice. The provincial prosthetist/orthotist-to-population ratio was 1:95,062 in 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Alberta Association of Orthotists and Prosthetists
11024 – 127 Street
Edmonton, Alberta
T5M 0T2

President: Mr. Armand Huneault

c) Legislation:

There is no legislation regulating prosthetists and orthotists in Alberta at present. In October 1988, the Alberta Association of Prosthetists and Orthotists applied for designation under the Health Disciplines Act. The investigation conducted by the Health Disciplines Board to determine if the discipline should be regulated under the Act is nearing completion.

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Prosthetists and Orthotists, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	0	57,200	—
2 (Lethbridge)	0	117,000	—
3 (Pincher Creek)	0	36,600	—
4 (Hanna)	0	12,000	—
5 (Drumheller)	0	39,200	—
6 (Calgary excluding CMA)	0	49,000	—
7 (Stettler)	0	39,200	—
8 (Red Deer)	2	124,000	1:62,000
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	0	76,600	—
11 (Edmonton excluding CMA)	0	26,500	—
12 (Bonnyville)	0	44,900	—
13 (Whitecourt)	0	56,200	—
14 (Hinton)	0	25,700	—
15 (Banff)	0	26,000	—
16 (Fort McMurray)	0	47,800	—
17 (High Level)	0	50,100	—
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	0	73,400	—
Census Metropolitan Area (CMA) of Calgary	8	721,200	1:90,150
Census Metropolitan Area (CMA) of Edmonton	16	818,600	1:51,163
Provincial Total	**26**	**2,471,600[3]**	**1:95,062**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Prosthetists and Orthotists, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	8	721,200	1:90,150
Census Metropolitan Area (CMA) of Edmonton	16	818,600	1:51,163
10,000 to 69,999			
Camrose	0	13,400	—
Fort McMurray	0	33,740	—
Grande Prairie	0	27,560	—
Hinton	0	10,070	—
Lethbridge	0	60,900	—
Medicine Hat	0	42,930	—
Red Deer	1	56,920	1:56,920
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	0	5,750	—
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	0	6,640	—
Ponoka	1	5,850	1:5,850
Rocky Mountain House	0	5,350	—
Slave Lake	0	5,930	—
St. Paul	0	4,900	—
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	0	532,480	—
Provincial Total	**26**	**2,471,600**	**1:95,062**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2

Selected Workforce Statistics for Prosthetists and Orthotists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	28	29	26
% Change in Number of Practising Personnel	-17.6%	3.6%	-10.3%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:85,311	1:83,552	1:95,062

IV. Educational Programs

There are no formal training programs for prosthetists and orthotists in Alberta. Although many of the prosthetists and orthotists in the province are trained on the job, some have been trained in post-secondary educational institutions in other provinces such as the British Columbia Institute of Technology (BCIT). Alberta has an inter-provincial training agreement with BCIT and the British Columbia Government to purchase three first-year training places for Alberta students every alternate year. This agreement expires June 30, 1992.

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Psychologists

I. Overview

Definition: Collect, interpret and apply scientific data for the purpose of investigating psychological phenomena and formulating and applying psychological principles and laws in predicting and controlling behaviour in society.

Study human behaviour and mental processes and investigate and recommend or provide treatment of psychological problems. Plan and carry out experiments using human beings and animal subjects, observe behaviour, and measure mental and physical characteristics. Analyze effects of hereditary and environmental factors on individual thought and behaviour. Undertake diagnosis, treatment and prevention of personality disorders and problems of maladjustment to social and occupational environment.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 1,187 chartered psychologists who resided in Alberta and registered with the Psychologists Association of Alberta (PAA) in 1990.[1] Not all chartered psychologists practise in the health care and social service sector. According to a workforce survey conducted by the Alberta Health and Social Services Disciplines Committee, there were 1,128 psychologists employed in health care and social service agencies and institutions in Alberta in 1990.[2]

Psychologists in the Census Metropolitan Areas of Calgary and Edmonton accounted for 86 percent of the total registered. The provincial chartered psychologist-to-population ratio was 1:2,082 in 1990.

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1 Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of March 31, 1991. Excludes associate and student members.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Psychologists Association of Alberta
Suite 400, Sunlife Place
10123 – 99 Street
Edmonton, Alberta
T5J 3H1

Executive Director: Dr. A. E. Hohol
Registrar: Dr. Sandra Wolfe
President: Dr. A. G. Scott
President Elect: Dr. Larry Fong

b) Legislation:

Psychologists are governed by the Psychology Profession Act which was proclaimed in March 1987.

Under the new act, the titles "psychologist" and "chartered psychologist" alone or in combination with other words are reserved for registered members. Non-registered members may still practise if this restriction is observed.

In addition, the titles "psychological associate in school psychology" and "psychological assistant" are reserved by regulation. Individuals who use titles which imply they are psychologists are contravening the legislation if they are not registered with the Psychologists Association of Alberta.

The Psychologists Association of Alberta is now responsible for registration, practice review and maintaining professional discipline. The Psychology Profession Act and Regulation set the basic educational qualifications required for registration as a psychologist. The Universities Coordinating Council has the authority to approve academic programs and determine equivalencies for registration as a chartered psychologist.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Psychologists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	9	57,200	1:6,356
2 (Lethbridge)	33	117,000	1:3,545
3 (Pincher Creek)	5	36,600	1:7,320
4 (Hanna)	0	12,000	—
5 (Drumheller)	6	39,200	1:6,533
6 (Calgary excluding CMA)	13	49,000	1:3,769
7 (Stettler)	2	39,200	1:19,600
8 (Red Deer)	49	124,000	1:2,531
9 (Rocky Mountain House)	1	16,300	1:16,300
10 (Camrose)	6	76,600	1:12,767
11 (Edmonton excluding CMA)	2	26,500	1:13,250
12 (Bonnyville)	5	44,900	1:8,980
13 (Whitecourt)	8	56,200	1:7,025
14 (Hinton)	2	25,700	1:12,850
15 (Banff)	4	26,000	1:6,500
16 (Fort McMurray)	8	47,800	1:5,975
17 (High Level)	1	50,100	1:50,100
18 (Grande Cache)	1	13,900	1:13,900
19 (Grande Prairie)	10	73,400	1:7,340
Census Metropolitan Area (CMA) of Calgary	479	721,200	1:1,506
Census Metropolitan Area (CMA) of Edmonton	543	818,600	1:1,508
Provincial Total	**1,187**	**2,471,600[3]**	**1:2,082**

1 Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of March 31, 1991. Excludes associate and student members.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 18
Community Breakdown of Registered Psychologists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	479	721,200	1:1,506
Census Metropolitan Area (CMA) of Edmonton	543	818,600	1:1,508
10,000 to 69,999			
Camrose	3	13,400	1:4,467
Fort McMurray	6	33,740	1:5,623
Grande Prairie	9	27,560	1:3,062
Hinton	1	10,070	1:10,070
Lethbridge	31	60,900	1:1,965
Medicine Hat	9	42,930	1:4,770
Red Deer	37	56,920	1:1,538
Wetaskiwin	2	10,200	1:5,100
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	0	9,340	—
Canmore	3	5,320	1:1,773
Coaldale	1	5,230	1:5,230
Crowsnest Pass	0	6,550	—
Drumheller	5	6,710	1:1,342
Edson	1	7,530	1:7,530
High River	3	5,750	1:1,917
Innisfail	1	5,750	1:5,750
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	3	6,380	1:2,127
Olds	2	5,230	1:2,615
Peace River	1	6,640	1:6,640
Ponoka	7	5,850	1:836
Rocky Mountain House	1	5,350	1:5,350
Slave Lake	0	5,930	—
St. Paul	3	4,900	1:1,633
Stettler	2	4,950	1:2,475
Taber	1	6,310	1:6,310
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	33	532,480	1:16,136
Provincial Total	**1,187**	**2,471,600**	**1:2,082**

1 Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of March 31, 1991. Excludes associate and student members.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Psychologists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel	1,174[1]	1,165[2]	1,187[3]
% Change in Number of Registered Personnel	4.7%	-0.8%	1.9%
Population (Alberta)[4]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:2,035	1:2,080	1:2,082

IV. Educational Programs

There are six master's degree programs in psychology in Alberta: Master of Science at the University of Calgary, Master of Arts and Master of Science at the University of Alberta, Master of Education in Educational Psychology at the University of Alberta and the University of Calgary, and Master of Science in Educational Psychology at the University of Calgary. These programs produced 83 graduates in 1989–90.

In addition, the University of Alberta and the University of Calgary have doctoral programs in both psychology and educational psychology. There were 51 graduates from these programs in 1989–90.

1 Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of December 31, 1988. Excludes associate and student members.

2 Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of February 5, 1990. Excludes associate and student members.

3 Source: Psychologists Association of Alberta. Number of chartered psychologists registered with the PAA and residing in Alberta as of March 31, 1991. Excludes associate and student members.

4 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Table 3
Educational Programs for Psychologists in Alberta[1]

	1987-88	1988-89	1989-90
A. Master's Programs			
University of Alberta			
Master of Arts in Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	1	5	4
2nd Year	2	0	4
3rd Year[2]	5	1	0
Graduates:	6	2	2
University of Alberta			
Master of Science in Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	5	4	5
2nd Year	4	4	5
3rd Year[2]	2	1	2
Graduates:	4	2	1
University of Alberta			
Master of Education in Educational Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	69	63	63
2nd Year[3]	80	92	93
Graduates:	62	53	39
University of Calgary			
Master of Science in Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	8	8	13
2nd Year	10	10	8
3rd Year[2]	4	5	5
Graduates:	16	19	13
University of Calgary			
Master of Education in Educational Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	14	18	17
2nd Year[3]	50	48	48
Graduates:	19	20	9

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 Third year refers to students enrolled in third and later years of the program.

3 Second year refers to students enrolled in second and later years of the program.

Table 3 continued
Educational Programs for Psychologists in Alberta[1]

	1987–88	1988–89	1989–90
University of Calgary			
Master of Science in Educational Psychology			
(Program Length: variable)			
Enrolments:			
1st Year	23	27	25
2nd Year[2]	36	37	51
Graduates:[3]	10	9	19
Provincial Totals			
Number of Master's Programs: 6			
Graduates:	117	105	83
B. Doctoral Programs			
University of Alberta			
Ph.D. in Psychology			
(Minimum Program Length: 3 years)			
Enrolments:			
1st Year	5	4	3
2nd Year	5	4	4
3rd Year[4]	5	6	5
Graduates:	3	6	1
University of Alberta			
Ph.D. in Educational Psychology			
(Maximum Program Length: 6 years)[5]			
Enrolments:			
1st Year	34	31	34
2nd Year[2]	99	111	98
Graduates:	17	19	32
University of Calgary			
Ph.D. in Psychology			
(Program Length: Approx. 3 years)			
Enrolments:			
1st Year	3	4	2
2nd Year	6	6	2
3rd Year[4]	8	8	8
Graduates:	2	6	6

1 Source: Alberta Health and Social Service Education Programs Inventory. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 Second year refers to students enrolled in second and later years of the program.

3 The graduate figures refer to those students who convocated in a given year and do not include students only recommended to pass.

4 Third year refers to students enrolled in third and later years of the program.

5 Ph.D. programs require a two-year residency, though the norm for completion is 3 to 4 years.

Table 3 continued
Educational Programs for Psychologists in Alberta[1]

	1987–88	1988–89	1989–90
University of Calgary			
Ph.D. in Educational Psychology			
(Maximum Program Length: 6 years)			
Enrolments:			
1st Year	5	10	6
2nd Year[2]	31	28	30
Graduates:	8	4	12
Provincial Total			
Number of Ph.D. Programs: 4			
Graduates:	30	35	51

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 Second year refers to students enrolled in second and later years of the program.

Public Health Inspectors

I. Overview

Definition: Public Health Inspectors within Alberta are Executive Officers of the Department of Health or the 27 local boards of health and are empowered to enforce the Public Health Act and regulations under the Act. Public Health Inspectors provide advice to the general public, industry, municipal, provincial and federal government agencies on matters pertaining to public and environmental health. They carry out inspections of food establishments, public housing, feed lots, piggeries, fur farms, poultry operations, rabbit keeping operations, recreation areas, work camps, abattoirs, wells, fountains, cisterns, water tanks, public lavatories, solid waste management facilities, institutions, swimming pools, dairies, private housing, public places, and any other place or building where a condition that is or might become injurious or dangerous to the public health, or that might hinder in any manner the prevention or suppression of disease. Public Health Inspectors provide written reports of inspections and where necessary recommend permitting or non-permitting of facilities. Where necessary, Public Health Inspectors may issue an order verbally or in the written form where they have reasonable and probable grounds to believe that a nuisance exists in or on the public place or private place that was the subject of inspection or that the place or the owner of it or any other person is in contravention of the Public Health Act or regulations under the Act. Public Health Inspectors take samples of water, milk, food and air and order chemical, physical or biological tests to determine contamination. Public Health Inspectors carry out investigations into food-borne illnesses, enteric disease, indoor air quality, and other public or environmental health issues. They carry out surveys, environmental health impact assessments and provide service in incidents of natural or man-made disasters such as uncontrolled releases of sour gas and hydrogen sulphide emissions. Public Health Inspectors provide various educational topics to the general public or industry in public or environmental health at public meetings or in an educational setting.

(Source: Alberta Health).

Public health inspectors are also known as environmental health officers. They are employed by federal, provincial and municipal governments, by educational institutions, and by private companies involved in food production, petroleum engineering, and pesticide production.

Since registration with the Canadian Institute of Public Health Inspectors is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were 126 public health inspectors practising in Alberta in 1990.[1] Public health inspectors employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 57 percent of the total. The provincial public health inspector-to-population ratio was 1:19,616 in 1990.

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

Certification Board of the Canadian Institute of Public Health Inspectors
Suite #200, 38 Auriga Drive
Nepean, Ontario
K2E 8A5

Board Chairman: Mr. Bob Carson

b) Professional Association:

Canadian Institute of Public Health Inspectors
(Alberta Branch)
149 Stephens Crescent
Hanna, Alberta
T0J 1P0

President: Mr. Murray Lewis

c) Legislation:

Public health inspectors in Alberta are regulated under the Public Health Act. Under the legislation, all individuals who wish to practise as public health inspectors for a local board of health established under the Public Health Act or Health Unit Act must be certified by the Board of Certification of Public Health Inspectors which is administered by the Canadian Institute of Public Health Inspectors. This requirement does not apply to persons who became public health inspectors prior to January 1, 1961 and who have continued in such positions since that date.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Public Health Inspectors, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	3	57,200	1:19,067
2 (Lethbridge)	6	117,000	1:19,500
3 (Pincher Creek)	2	36,600	1:18,300
4 (Hanna)	1	12,000	1:12,000
5 (Drumheller)	2	39,200	1:19,600
6 (Calgary excluding CMA)	3	49,000	1:16,333
7 (Stettler)	2	39,200	1:19,600
8 (Red Deer)	5	124,000	1:24,800
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	5	76,600	1:15,320
11 (Edmonton excluding CMA)	1	26,500	1:26,500
12 (Bonnyville)	2	44,900	1:22,450
13 (Whitecourt)	2	56,200	1:28,100
14 (Hinton)	3	25,700	1:8,567
15 (Banff)	3	26,000	1:8,667
16 (Fort McMurray)	4	47,800	1:11,950
17 (High Level)	3	50,100	1:16,700
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	7	73,400	1:10,486
Census Metropolitan Area (CMA) of Calgary	33	721,200	1:21,855
Census Metropolitan Area (CMA) of Edmonton	39	818,600	1:20,990
Provincial Total	**126**	**2,471,600[3]**	**1:19,616**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Public Health Inspectors, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	33	721,200	1:21,855
Census Metropolitan Area (CMA) of Edmonton	39	818,600	1:20,990
10,000 to 69,999			
Camrose	2	13,400	1:6,700
Fort McMurray	2	33,740	1:16,870
Grande Prairie	4	27,560	1:6,890
Hinton	2	10,070	1:5,035
Lethbridge	2	60,900	1:30,450
Medicine Hat	3	42,930	1:14,310
Red Deer	4	56,920	1:14,230
Wetaskiwin	1	10,200	1:10,200
4,900 to 9,999			
Banff	2	6,920	1:3,460
Bonnyville	1	5,170	1:5,170
Brooks	1	9,340	1:9,340
Canmore	1	5,320	1:5,320
Coaldale	2	5,230	1:2,615
Crowsnest Pass	0	6,550	—
Drumheller	2	6,710	1:3,355
Edson	1	7,530	1:7,530
High River	2	5,750	1:2,875
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	0	9,600	—
Okotoks	0	6,380	—
Olds	0	5,230	—
Peace River	2	6,640	1:3,320
Ponoka	1	5,850	1:5,850
Rocky Mountain House	0	5,350	—
Slave Lake	1	5,930	1:5,930
St. Paul	1	4,900	1:4,900
Stettler	1	4,950	1:4,950
Taber	1	6,310	1:6,310
Vegreville	2	5,030	1:2,515
Whitecourt	1	6,690	1:6,690
Under 4,900	12	532,480	1:44,373
Provincial Total	**125**	**2,471,600**	**1:19,616**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Public Health Inspectors in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	132	116	126
% Change in Number of Practising Personnel	4.8%	-12.1%	8.6%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:18,096	1:20,888	1:19,616

IV. Educational Programs

In Canada, only two post-secondary institutions offer formal training programs for public health inspectors. Programs in environmental health are offered at the British Columbia Institute of Technology (BCIT) in Vancouver and Ryerson Polytechnical Institute in Toronto. BCIT offers a two-year diploma program; Ryerson offers a four-year baccalaureate program. Upon completion of two years of training in either of these programs, an individual is eligible to sit for the Board of Certification examination provided he/she has completed 24 weeks of field experience in a local health authority. The certification examination consists of three parts, each of which must be successfully completed to obtain a passing grade. A candidate may attempt the examination only twice.

In Alberta, Athabasca University offers correspondence courses in public health.

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1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Recreational Therapists

I. Overview

Definition: Through a program of recreational activities, recreational therapists provide goal-oriented treatment services directed to rehabilitation or modification of identified physical, emotional, cognitive and social behaviours. Recreational therapists perform the following tasks: assess individual client's leisure needs; document information (treatment plan, progress and discharge summary) on client's chart; develop individualized client programs focusing on treatment, leisure education and recreation participation; provide opportunities for individual, small and large group participation in regularly scheduled activities and special events; adapt activities to meet individual client's needs; attend rehabilitation team meetings and therapeutic recreation seminars, workshops and courses; supervise and orientate students, auxiliary personnel, and volunteers assigned to the department.

(Source: Alberta Therapeutic Recreation Association, May 1989)

Since registration with the Alberta Therapeutic Recreation Association is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

There were 315 recreational therapists practising in Alberta in 1990.[1] According to the survey, 26 percent of these individuals were employed in nursing homes, 25 percent in auxiliary hospitals, and 25 percent in acute care hospitals.[2] Recreational therapists employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 64 percent of the total. The provincial recreational therapist-to-population ratio was 1:7,846 in 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Alberta Therapeutic Recreation Association
Box 4673
Edmonton, Alberta
T6E 5G5

President: Ms. Theresa Matus
President Elect: Ms. Darlene Murphy

c) Legislation:

There is no legislation regulating recreational therapists in Alberta. The Alberta Therapeutic Recreation Association applied for designation under the Health Disciplines Act. However, the investigation conducted by the Health Disciplines Board determined there was insufficient risk to warrant regulation.

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1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Ibid.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Recreational Therapists, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	7	57,200	1:8,171
2 (Lethbridge)	21	117,000	1:5,571
3 (Pincher Creek)	6	36,600	1:6,100
4 (Hanna)	1	12,000	1:12,000
5 (Drumheller)	2	39,200	1:19,600
6 (Calgary excluding CMA)	7	49,000	1:7,000
7 (Stettler)	3	39,200	1:13,067
8 (Red Deer)	31	124,000	1:4,000
9 (Rocky Mountain House)	3	16,300	1:5,433
10 (Camrose)	9	76,600	1:8,511
11 (Edmonton excluding CMA)	0	26,500	—
12 (Bonnyville)	4	44,900	1:11,225
13 (Whitecourt)	3	56,200	1:18,733
14 (Hinton)	1	25,700	1:25,700
15 (Banff)	3	26,000	1:8,667
16 (Fort McMurray)	2	47,800	1:23,900
17 (High Level)	0	50,100	—
18 (Grande Cache)	1	13,900	1:13,900
19 (Grande Prairie)	8	73,400	1:9,175
Census Metropolitan Area (CMA) of Calgary	91	721,200	1:7,925
Census Metropolitan Area (CMA) of Edmonton	112	818,600	1:7,309
Provincial Total	**315**	**2,471,600[3]**	**1:7,846**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Recreational Therapists, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	91	721,200	1:7,925
Census Metropolitan Area (CMA) of Edmonton	112	818,600	1:7,309
10,000 to 69,999			
Camrose	3	13,400	1:4,467
Fort McMurray	2	33,740	1:16,870
Grande Prairie	3	27,560	1:9,187
Hinton	0	10,070	—
Lethbridge	18	60,900	1:3,383
Medicine Hat	7	42,930	1:6,133
Red Deer	17	56,920	1:3,348
Wetaskiwin	0	10,200	—
4,900 to 9,999			
Banff	1	6,920	1:6,920
Bonnyville	1	5,170	1:5,170
Brooks	0	9,340	—
Canmore	1	5,320	1:5,320
Coaldale	1	5,230	1:5,230
Crowsnest Pass	1	6,550	1:6,550
Drumheller	0	6,710	—
Edson	1	7,530	1:7,530
High River	1	5,750	1:5,750
Innisfail	0	5,750	—
Lacombe	2	6,470	1:3,235
Lloydminster	1	9,600	1:9,600
Okotoks	0	6,380	—
Olds	1	5,230	1:5,230
Peace River	2	6,640	1:3,320
Ponoka	11	5,850	532
Rocky Mountain House	3	5,350	1:1,783
Slave Lake	0	5,930	—
St. Paul	3	4,900	1:1,633
Stettler	1	4,950	1:4,950
Taber	1	6,310	1:6,310
Vegreville	1	5,030	1:5,030
Whitecourt	0	6,690	—
Under 4,900	29	532,480	1:18,361
Provincial Total	**315**	**2,471,600**	**1:7,846**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Recreational Therapists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	278	289	315
% Change in Number of Practising Personnel	6.1%	4.0%	9.0%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:8,592	1:8,384	1:7,846

IV. Educational Programs

Mount Royal College and Lethbridge Community College offer a two-year diploma program in recreation therapy. These programs produced a total of 30 graduates in 1989–90. In addition, Red Deer College offers a two-year university transfer program leading to a Bachelor of Arts in Recreation Administration. The University of Alberta offers a four-year undergraduate degree and a two-year master's degree in Recreation Administration. Individuals may concentrate their studies in a number of areas including recreation for special populations (Therapeutic Recreation).

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1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Table 3
Educational Programs for Recreational Therapists in Alberta[1]

	1987–88	1988–89	1989–90
A. Diploma Program			
Mount Royal College			
(Program Length: 2 years)			
Enrolments:			
1st Year	59	93	92
2nd Year	46	49	49
Graduates:	32	28	24
Lethbridge Community College[2]			
Recreational Management			
(Therapeutic Option)			
(Program Length: 2 years)			
Enrolments:			
1st Year	—	26	33
2nd Year	—	10	9
Graduates:	—	7	6
Provincial Total			
Number of Diploma Training Programs: 2			
Graduates:	N/A	35	30
B. Baccalaureate Programs[3]			
University of Alberta			
Recreation Administration			
(Therapeutic Recreation Concentration)			
(Program Length: 4 years)			
Enrolments: (all years)	58	97	76
Graduates:	9	21	20
C. Master's Program[3]			
University of Alberta			
Recreation Administration			
(Therapeutic Recreation Concentration)			
(Program Length: 2 years)			
Enrolments: (both years)	4	4	6
Graduates:	2	—	2

1 Source: **Alberta Health and Social Service Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 This program is not new but was included for the first time in the 1989 inventory.

3 Source: Department of Recreational and Leisure Studies, University of Alberta (Edmonton), June 1991.

Registered Nurses

I. Overview

Definition: A registered nurse and a certified graduate nurse are entitled to apply professional nursing knowledge for the purpose of

(a) promoting, maintaining or restoring health;

(b) preventing illness, injury or disability;

(c) caring for the injured, disabled or incapacitated;

(d) assisting in childbirth;

(e) teaching nursing theory or practice;

(f) caring for the dying;

(g) co-ordinating health care;

(h) engaging in the administration, education, teaching or research required to implement or complement exclusive nursing practice or all or any of the matters referred to in clauses (a) to (g).

(Source: Nursing Profession Act, S.A. 1983, ch.N-14.5)

There were 23,021 active nurses who resided in Alberta and registered with the Alberta Association of Registered Nurses (AARN) in 1990.[1] According to a workforce survey conducted by the Alberta Health and Social Services Disciplines Committee, 19,152 registered nurses were employed as of March 31, 1990.[2] The number of practising registered nurses by specialty is shown in Table 4 of this chapter. Registered nurses located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 69 percent of the total number registered. The provincial registered nurse-to-population ratio was 1:107 in 1990.

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1 Source: Alberta Association of Registered Nurses. Number of nurses registered with the AARN and residing in Alberta as of September 30, 1990. Excludes inactive, honorary, associate, and retired members.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Association of Registered Nurses
11620 – 168 Street
Edmonton, Alberta
T5M 4A6

Acting Executive Director/Registrar: Ms. Jean Smith
President: Ms. Phyllis Giovannetti
President Elect: Ms. Mary Pat Skene

b) Legislation:

Nurses are regulated by the Nursing Profession Act which was proclaimed in 1984. Subject to certain exemptions, the Nursing Profession Act requires that all nurses practising in Alberta who wish to use the title of "registered nurse" must register with the Alberta Association of Registered Nurses.

The Act gives the Alberta Association of Registered Nurses the authority to register qualified individuals in the appropriate registers, and to grant special permits and temporary permits to others who wish to practise under the Act.

The Act establishes a Practice Review Committee which has the authority to investigate the desirable standards of competence for nursing practice in general and the competence of particular registered nurses or permit holders. Complaints concerning unskilled practice and professional misconduct by registered nurses or permit holders may be investigated by the Professional Conduct Committee. Educational requirements for registration are established by the Universities Coordinating Council. In addition, regulations specify individuals must have completed 1,125 hours or more of satisfactory nursing practice in the five years preceding registration. If this requirement is not met, a refresher course must be completed.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Nurses, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	474	57,200	1:121
2 (Lethbridge)	1,122	117,000	1:104
3 (Pincher Creek)	261	36,600	1:140
4 (Hanna)	99	12,000	1:121
5 (Drumheller)	257	39,200	1:153
6 (Calgary excluding CMA)	347	49,000	1:141
7 (Stettler)	288	39,200	1:136
8 (Red Deer)	1,289	124,000	1:96
9 (Rocky Mountain House)	74	16,300	1:220
10 (Camrose)	576	76,600	1:133
11 (Edmonton excluding CMA)	174	26,500	1:152
12 (Bonnyville)	310	44,900	1:145
13 (Whitecourt)	337	56,200	1:167
14 (Hinton)	107	25,700	1:240
15 (Banff)	200	26,000	1:130
16 (Fort McMurray)	351	47,800	1:136
17 (High Level)	187	50,100	1:268
18 (Grande Cache)	60	13,900	1:232
19 (Grande Prairie)	559	73,400	1:131
Census Metropolitan Area (CMA) of Calgary	7,075	721,200	1:102
Census Metropolitan Area (CMA) of Edmonton	8,744	818,600	1:94
Location Unknown	130	—	—
Provincial Total	**23,021**	**2,471,600[3]**	**1:107**

1 Source: Alberta Association of Registered Nurses. Number of nurses registered with the AARN and residing in Alberta as of September 30, 1990. Excludes inactive, honorary, associate, and retired members.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Nurses, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	7,075	721,200	1:102
Census Metropolitan Area (CMA) of Edmonton	8,744	818,600	1:94
10,000 to 69,999			
Camrose	140	13,400	1:96
Fort McMurray	284	33,740	1:119
Grande Prairie	288	27,560	1:96
Hinton	52	10,070	1:194
Lethbridge	757	60,900	1:80
Medicine Hat	411	42,930	1:104
Red Deer	757	56,920	1:75
Wetaskiwin	113	10,200	1:90
4,900 to 9,999			
Banff	44	6,920	1:157
Bonnyville	54	5,170	1:96
Brooks	80	9,340	1:117
Canmore	65	5,320	1:82
Coaldale	54	5,230	1:97
Crowsnest Pass	55	6,550	1:119
Drumheller	64	6,710	1:105
Edson	50	7,530	1:151
High River	64	5,750	1:90
Innisfail	75	5,750	1:77
Lacombe	97	6,470	1:67
Lloydminster	40	9,600	1:240
Okotoks	74	6,380	1:86
Olds	65	5,230	1:80
Peace River	63	6,640	1:105
Ponoka	146	5,850	1:40
Rocky Mountain House	56	5,350	1:96
Slave Lake	33	5,930	1:180
St. Paul	70	4,900	1:70
Stettler	49	4,950	1:101
Taber	56	6,310	1:113
Vegreville	62	5,030	1:81
Whitecourt	41	6,690	1:163
Under 4,900	2,813	532,480	1:189
Location Unknown	130	—	—
Provincial Total	**23,021**	**2,471,600**	**1:107**

1 Source: Alberta Association of Registered Nurses. Number of nurses registered with the AARN and residing in Alberta as of September 30, 1990. Excludes inactive, honorary, associate, and retired members.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Registered Nurses in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel[1]	21,699	22,253	23,021
% Change in Number of Registered Personnel	1.1%	2.6%	3.4%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio:			
— Alberta	1:110	1:109	1:107
— Western Canada[3]	1:110	1:110	—

IV. Educational Programs

In 1989–90, there were 14 basic education programs which met the training requirements to obtain status as a registered nurse. Of these, two were baccalaureate programs, seven were diploma programs offered in community colleges, four were diploma programs offered in hospitals and one was a diploma program for registered psychiatric nurses. These programs produced a total of 880 graduates (746 from the diploma programs and 134 from the baccalaureate programs) in 1989–90. Table 3A lists the basic education programs, including the supplementary program for psychiatric nurses.

In addition, there were 13 post-basic education programs for registered nurses. Of these, seven were specialized studies leading to a certificate, four were post-diploma baccalaureate programs and two were master's degree programs. These programs produced a total of 394 graduates (216 from post-diploma baccalaureate programs, 34 from master's programs and 144 from post-basic certificate programs) in 1989–90. Table 3B lists the post-basic education programs for registered nurses.

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1 Source: Alberta Association of Registered Nurses. Number of nurses registered with the AARN and residing in Alberta as of September 30 of the indicated year. Excludes inactive, honorary, associate, and retired members.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

3 Source: Ratios for the provinces of Manitoba, Saskatchewan, Alberta and British Columbia combined derived from, **Health Personnel in Canada — 1989.** Ottawa, Ontario: Department of National Health and Welfare, March 1991.

Table 3A
Educational Programs for Registered Nurses in Alberta[1]

	1987-88	1988-89	1989-90
A. Baccalaureate Nursing Programs			
University of Alberta			
(Program Length: 4 years)			
Enrolments:			
1st Year	99	103	102
2nd Year	103	89	84
3rd Year	82	92	78
4th Year	76	84	89
Graduates:	80	76	92
University of Calgary			
(Program Length: 4 years)			
Enrolments:			
1st Year	64	80	80
2nd Year	61	57	69
3rd Year	58	52	55
4th Year	55	52	44
Graduates:	51	51	42
Provincial Total			
Number of Baccalaureate Programs: 2			
Graduates:	131	127	134
B. Diploma Nursing Programs			
Grande Prairie Regional College			
(Program Length: 96 weeks)[2]			
Enrolments:			
1st Year	28	33	30
2nd Year	22	19	24
Graduates:	22	18	0
Grant MacEwan Community College			
(Program Length: 88 weeks)			
Enrolments:			
1st Year	82	83	78
2nd Year	60	62	70
Graduates:	58	62	66
Keyano College			
(Program Length: 88 weeks)			
Enrolments:			
1st Year	24	27	27
2nd Year	22	18	16
Graduates:	22	19	13

1 Source: Alberta Health and Social Service Education Programs Inventory. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 The program was extended to 96 weeks, from 88 weeks, in September 1989; consequently there were no graduates in 1989/90.

Table 3A continued
Educational Programs for Registered Nurses in Alberta[1]

	1987–88	1988–89	1989–90
Lethbridge Community College			
(Program Length: 88 weeks)			
Enrolments:			
1st Year	105	104	75
2nd Year	72	65	54
Graduates:	64	61	51
Medicine Hat College			
(Program Length: 88 weeks)			
Enrolments:			
1st Year	38	38	43
2nd Year	24	24	25
Graduates:	21	30	22
Mount Royal College			
(Program Length: 88 weeks)			
Enrolments:			
1st Year	113	121	110
2nd Year	108	112	116
Graduates:	84	81	89
Red Deer College			
(Program Length: 91 weeks)[2]			
Enrolments:			
1st Year	79	87	84
2nd Year	67	61	74
Graduates:	60	57	70
Foothills Hospital			
(Program Length: 3 years)			
Enrolments:			
1st Year	151	150	149
2nd Year	122	105	123
3rd Year	113	113	101
Graduates:	97	99	92
Misericordia Hospital			
(Program Length: 3 years)			
Enrolments:			
1st Year	90	91	90
2nd Year	73	77	77
3rd Year	72	70	68
Graduates:	79	69	67

1 Source: **Alberta Health and Social Service Education Programs Inventory**, Edmonton, Alberta: Department of Advanced Education, December 1990.

2 The program was extended to 91 weeks, from 88 weeks, September 1990.

Table 3A continued
Educational Programs for Registered Nurses in Alberta[1]

	1987–88	1988–89	1989–90
Royal Alexandra Hospital			
(Program Length: 2 1/3 years)			
Enrolments:			
1st Year	117	115	116
2nd Year	109	119	109
3rd Year	100	97	106
Graduates:	101	96	110
University of Alberta Hospitals			
(Program Length: 2 1/3 years)			
Enrolments:			
1st Year	164	164	168
2nd Year	151	163	160
3rd Year	149	161	146
Graduates:	148	133	144
Provincial Total			
Number of Diploma Programs: 11			
Graduates:	756	725	724
C. Supplementary Nursing Diploma Programs			
(for Registered Psychiatric Nurses)			
Grant MacEwan Community College			
(Program Length: 13 months)			
Enrolments.			
1st Year	17	18	23
Graduates:	16	18	22
B & C Provincial Total			
Total Supplementary plus			
Basic Diploma Programs: 12			
Graduates:	772	743	746

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

Table 3B
Post-Basic Education Programs for Registered Nurses in Alberta[1]

	1987–88	1988–89	1989–90
A. Post-Diploma Baccalaureate Education Programs			
Athabasca University[2]			
(Program Length: N/A)			
Enrolments:			
1st Year	—	—	—
2nd Year	—	—	—
Graduates:	—	—	—
University of Alberta			
(Program Length: 2 years)			
Enrolments:			
1st Year	94	92	95
2nd Year	141	136	224
Graduates:	137	130	101
University of Calgary			
(Program Length: 2 years)			
Enrolments:			
1st Year	50	50	75
2nd Year	19	20	15
Graduates:	63	41	66
University of Lethbridge			
(Program Length: 2 years)			
Enrolments:			
1st Year	84	72	74
2nd Year	41	114	69
Graduates:	30	52	49
Provincial Total			
Number of Post-Diploma Baccalaureate Nursing Programs for Diploma Nurses: 4			
Graduates:	230	223	216
B. Master of Nursing Programs			
University of Alberta			
(Program Length: 2 years)			
Enrolments:			
1st Year	21	20	23
2nd Year	39	33	48
Graduates:	15	22	15

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 The program enrolled its first students in September 1, 1990. As such, enrolment data will not be available until the 1990-91 academic year.

Table 3B continued
Post-Basic Education Programs for Registered Nurses in Alberta[1]

	1987–88	1988–89	1989–90
University of Calgary			
(Program Length: 2 years)			
Enrolments:			
1st Year	21	29	50
2nd Year	35	32	16
Graduates:	10	14	19
Provincial Total			
Number of Master of Nursing Programs: 2			
Graduates:	25	36	34
C. Certificate Education Programs			
Adult Critical Care Nursing[2]			
Foothills Hospital School of Nursing			
(Program Length: 16 weeks)			
Enrolments:			
1st Year	—	—	38
Graduates:	—	—	36
Critical Care Nursing			
Misericordia Hospital School of Nursing			
(Program Length: 16 weeks)			
Enrolments:			
1st Year	32	31	33
Graduates:	27	30	38
Gerontological Nursing			
Grant MacEwan Community College			
(Program Length: 1 year)			
Enrolments:			
1st Year	30	26	23
Graduates:	34	16	19
Mental Health Nursing			
Mount Royal College			
Program Length: (10 months full-time)(2 1/2 years part-time)			
Enrolments:			
1st Year	41	44	59
Graduates:	13	7	7
Neonatal Intensive Care Nursing Education			
Foothills Hospital School of Nursing			
(Program Length: variable)			
Enrolments:			
1st Year	19	22	26
Graduates:	14	17	19

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 Program commenced in the 1989-90 academic year.

Table 3B continued
Post-Basic Education Programs for Registered Nurses in Alberta[1]

	1987–88	1988–89	1989–90
Occupational Health Nursing Grant MacEwan Community College (Program Length: 1 year) Enrolments:			
1st Year	32	49	56
Graduates:	5	7	12
Introduction to Operating Room Nursing University of Alberta Hospitals (Program Length: 12 weeks)			
Enrolments:	21	22	13
Graduates:	21	21	13
Provincial Total Number of Post-Basic Certificate Programs: 7			
Graduates:	114	98	144
Provincial Total Number of Post-Basic Education Programs: 13			
Graduates:	369	357	394

Refresher Programs:

In 1989–90, six institutions (Grande Prairie Regional College, Grant MacEwan Community College, Keyano College, Lakeland College, Lethbridge Community College, and Red Deer College) offered refresher courses in nursing for individuals returning to practise or those requiring upgrading of credentials to meet registration requirements. In the 1989–90 academic year, 362 students were enrolled in these programs and 257 graduated.[1]

[1] Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

Table 4
Practising Nurses by Specialty and Personnel-to-Population Ratios by Specialty, Alberta, 1990

Specialty	Number of Practising Nurses[1]	Personnel-to-Population Ratio[2]
Administrative	2,032	1:1,216
Community/Public Health	809	1:3,055
Emergency Room	613	1:4,032
Home Care	616	1:4,012
Intensive Care Units (C.C.U., I.C.U., Burn)	1,393	1:1,774
Intravenous Therapy	87	1:28,409
Labor Delivery/Recovery Suite	367	1:6,735
Long Term Care/Rehabilitation	1,936	1:1,277
Maternal/Child	668	1:3,700
Medical/Surgical	4,418	1:559
Nursing Education	1,075	1:2,299
Occupational/Staff Health	237	1:10,429
Operating Room	725	1:3,409
Out-Patient Services	373	1:6,626
Pediatrics	595	1:4,154
Physicians' Offices, Medical or School Clinics	709	1:3,486
Psychiatric Wards	822	1:3,007
Recovery Room	173	1:14,287
Short Stay Unit	149	1:16,588
Specialty Total	17,797	1:139
General Duty and Other Areas	1,355	1:1,824
Grand Total	**19,152**[3]	**1:129**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Ratios calculated using a provincial population of 2,471,600 as of June 1, 1990 — Alberta Bureau of Statistics, 1991.

3 The total number of personnel in Table 4 is less than the total number of personnel in Tables 1A and 1B. This table shows the number of practising personnel as of March 31, 1990 whereas Tables 1A and 1B show the number of active nurses who were registered with the Alberta Association of Registered Nurses as of September 30, 1990.

Registered Psychiatric Nurses

I. Overview

Definition: Provide nursing care to patients with mental and emotional problems in hospitals and clinics or in private homes. Administer prescribed medications and treatments and attend to total nursing care of assigned patients. Observe, record and report symptoms and changes in patient's condition. Confer with psychiatrists, psychologists, social workers, occupational therapists and other specialists to evaluate patient's condition and to plan therapy. Encourage patients to participate in routine work functions and recreational, community and other activities to build self-confidence and to develop relationships with others. Counsel patients at home or in clinic and evaluate patient's adjustment in community.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

There were 1,243 registered psychiatric nurses who resided in Alberta and were active members of the Registered Psychiatric Nurses Association of Alberta (RPNAA) on April 30, 1990.[1]

Registered psychiatric nurses located in the Census Metropolitan Areas of Calgary and Edmonton accounted for 60 percent of those registered with the RPNAA. The psychiatric nurse-to-population ratio was 1:1,988 in Alberta in 1990.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Registered Psychiatric Nurses Association of Alberta
#201, 9711 – 45 Avenue
Edmonton, Alberta
T6E 5V8

Executive Director: Mr. Tim Schultz
President: Mr. David Somers
Vice President: Mr. David Carlin

b) Legislation:

Since January 1, 1988, registered psychiatric nurses have been regulated under the Health Disciplines Act. The Registered Psychiatric Nurses Association of Alberta is designated under the Act as the body responsible for registration of members and handling of complaints. Through regulations, the Health Disciplines Board sets the educational qualifications required for registration. The regulations also reserve the titles "psychiatric nurse" and "registered psychiatric nurse" for registered members.

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1 Source: Registered Psychiatric Nurses Association of Alberta. Number of active psychiatric nurses registered with the RPNAA and residing in Alberta as of April 30, 1990.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Psychiatric Nurses, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	14	57,200	1:4,086
2 (Lethbridge)	39	117,000	1:3,000
3 (Pincher Creek)	33	36,600	1:1,109
4 (Hanna)	2	12,000	1:6,000
5 (Drumheller)	7	39,200	1:5,600
6 (Calgary excluding CMA)	5	49,000	1:9,800
7 (Stettler)	7	39,200	1:5,600
8 (Red Deer)	265	124,000	1:468
9 (Rocky Mountain House)	1	16,300	1:16,300
10 (Camrose)	42	76,600	1:1,824
11 (Edmonton excluding CMA)	7	26,500	1:3,786
12 (Bonnyville)	10	44,900	1:4,490
13 (Whitecourt)	6	56,200	1:9,367
14 (Hinton)	6	25,700	1:4,283
15 (Banff)	1	26,000	1:26,000
16 (Fort McMurray)	5	47,800	1:9,560
17 (High Level)	3	50,100	1:16,700
18 (Grande Cache)	5	13,900	1:2,780
19 (Grande Prairie)	37	73,400	1:1,984
Census Metropolitan Area (CMA) of Calgary	184	721,200	1:3,920
Census Metropolitan Area (CMA) of Edmonton	564	818,600	1:1,451
Provincial Total	**1,243**	**2,471,600[3]**	**1:1,988**

1 Source: Registered Psychiatric Nurses Association of Alberta. Number of active psychiatric nurses registered with the RPNAA and residing in Alberta as of April 30, 1990.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Psychiatric Nurses, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	184	721,200	1:3,920
Census Metropolitan Area (CMA) of Edmonton	564	818,600	1:1,451
10,000 to 69,999			
Camrose	27	13,400	1:496
Fort McMurray	5	33,740	1:6,748
Grande Prairie	21	27,560	1:1,312
Hinton	1	10,070	1:10,070
Lethbridge	27	60,900	1:2,256
Medicine Hat	10	42,930	1:4,293
Red Deer	42	56,920	1:1,355
Wetaskiwin	4	10,200	1:2,550
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	3	5,170	1:1,723
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	4	6,710	1:1,678
Edson	3	7,530	1:2,510
High River	0	5,750	—
Innisfail	3	5,750	1:1,917
Lacombe	13	6,470	1:498
Lloydminster	0	9,600	—
Okotoks	1	6,380	1:6,380
Olds	2	5,230	1:2,615
Peace River	8	6,640	1:830
Ponoka	193	5,850	1:30
Rocky Mountain House	1	5,350	1:5,350
Slave Lake	1	5,930	1:5,930
St. Paul	4	4,900	1:1,225
Stettler	0	4,950	—
Taber	1	6,310	1:6,310
Vegreville	1	5,030	1:5,030
Whitecourt	2	6,690	1:3,345
Under 4,900	118	532,480	1:4,513
Provincial Total	**1,243**	**2,471,600**	**1:1,988**

1 Source: Registered Psychiatric Nurses Association of Alberta. Number of active psychiatric nurses registered with the RPNAA and residing in Alberta as of April 30, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Registered Psychiatric Nurses in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel	1,132[1]	1,169[1]	1,243[2]
% Change in Number of Registered Personnel	11.2%	3.3%	6.3%
Population (Alberta)[3]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:2,110	1:2,073	1:1,988

IV. Educational Programs

Currently, only the Alberta Hospital, Ponoka offers a two-year hospital-based psychiatric nursing diploma program. The program previously offered at Alberta Hospital, Edmonton was discontinued. Enrolment for the program was suspended in 1989, with the last class scheduled to graduate in 1991. Together both programs produced 44 graduates in 1989–90. Before students are eligible for registration, they must pass an examination approved by the Health Disciplines Board.

Table 3
Educational Programs for Registered Psychiatric Nurses in Alberta[4]

	1987–88	1988–89	1989–90
Psychiatric Nursing Diploma			
Alberta Hospital — Edmonton			
(Program Length: 2 years)			
Enrolments:			
1st Year	20	26	0
2nd Year	22	12	12
Graduates:	21	12	12
Alberta Hospital — Ponoka			
(Program Length: 2 years)			
Enrolments:			
1st Year	35	40	40
2nd Year	28	32	40
Graduates:	27	28	32
Provincial Total			
Number of Training Programs: 2 (1 since 1989)			
Graduates:	48	40	44

1 Source: Registered Psychiatric Nurses Association of Alberta. Number of active psychiatric nurses registered with the RPNAA and residing in Alberta as of December 31 of the indicated year.

2 Source: Registered Psychiatric Nurses Association of Alberta. Number of active psychiatric nurses registered with the RPNAA and residing in Alberta as of April 30, 1990.

3 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates. Alberta Bureau of Statistics, Jun 1991.

4 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Rehabilitation Practitioners

I. Overview

Definition: Rehabilitation practitioners work in the provision of rehabilitation programs to the developmentally handicapped in a community or institutional setting. These workers are normally responsible for the delivery of established care and developmental programs based on client's needs in the areas of residence, family support, vocation, social education, recreation/leisure or developmental day care.

(Source: Alberta Family and Social Services)

Since registration with the Alberta Association of Rehabilitation Practitioners is not mandatory, the survey of health and social service personnel working in Alberta, conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as the source of workforce information.

There were 1,396 rehabilitation practitioners practising in Alberta in 1990.[1] Rehabilitation practitioners employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 60 percent of the total. Another 22 percent were located in Census Division 8 (Red Deer) where Michener Centre, the province's largest institution for the developmentally handicapped, is located. The provincial rehabilitation practitioner-to-population ratio was 1:1,770 in 1990.

II. Professional Association and Legislation Information

a) Licensing, Registration, or Certification Authority:

None

b) Professional Association:

Alberta Association of Rehabilitation Practitioners
P.O. Box 386
Edmonton, Alberta
T5J 2J6

President: Ms. Shauna Byar

c) Legislation:

Rehabilitation practitioners have been designated to be regulated under the Health Disciplines Act; a Rehabilitation Practitioners Committee was established under this Act. Currently the government is re-evaluating the need to regulate this discipline.

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[1] Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Rehabilitation Practitioners, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	34	57,200	1:1,682
2 (Lethbridge)	45	117,000	1:2,600
3 (Pincher Creek)	3	36,600	1:12,200
4 (Hanna)	3	12,000	1:4,000
5 (Drumheller)	9	39,200	1:4,356
6 (Calgary excluding CMA)	10	49,000	1:4,900
7 (Stettler)	15	39,200	1:2,613
8 (Red Deer)	303	124,000	1:409
9 (Rocky Mountain House)	10	16,300	1:1,630
10 (Camrose)	35	76,600	1:2,189
11 (Edmonton excluding CMA)	6	26,500	1:4,417
12 (Bonnyville)	3	44,900	1:14,967
13 (Whitecourt)	4	56,200	1:14,050
14 (Hinton)	2	25,700	1:12,850
15 (Banff)	0	26,000	—
16 (Fort McMurray)	5	47,800	1:9,560
17 (High Level)	0	50,100	—
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	65	73,400	1:1,129
Census Metropolitan Area (CMA) of Calgary	256	721,200	1:2,817
Census Metropolitan Area (CMA) of Edmonton	588	818,600	1:1,392
Provincial Total	**1,396**	**2,471,600[3]**	**1:1,770**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Rehabilitation Practitioners, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	256	721,200	1:2,817
Census Metropolitan Area (CMA) of Edmonton	588	818,600	1:1,392
10,000 to 69,999			
Camrose	25	13,400	1:536
Fort McMurray	3	33,740	1:11,247
Grande Prairie	65	27,560	1:424
Hinton	0	10,070	—
Lethbridge	43	60,900	1:1,416
Medicine Hat	29	42,930	1:1,480
Red Deer	292	56,920	1:195
Wetaskiwin	6	10,200	1:1,700
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	0	5,170	—
Brooks	0	9,340	—
Canmore	0	5,320	—
Coaldale	0	5,230	—
Crowsnest Pass	0	6,550	—
Drumheller	9	6,710	1:746
Edson	2	7,530	1:3,765
High River	0	5,750	—
Innisfail	3	5,750	1:1,917
Lacombe	7	6,470	1:924
Lloydminster	6	9,600	1:1,600
Okotoks	0	6,380	—
Olds	10	5,230	1:523
Peace River	0	6,640	—
Ponoka	1	5,850	1:5,850
Rocky Mountain House	10	5,350	1:535
Slave Lake	0	5,930	—
St. Paul	3	4,900	1:1,633
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	4	5,030	1:1,258
Whitecourt	0	6,690	—
Under 4,900	34	532,480	1:15,661
Provincial Total	**1,396**	**2,471,600**	**1:1,770**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Rehabilitation Practitioners in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	1,350	1,465	1,396
% Change in Number of Practising Personnel	-12.8%	8.5%	-4.7%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:1,769	1:1,654	1:1,770

IV. Educational Programs

Training in rehabilitative services is offered in one-year certificate programs, two-year diploma programs, and a four-year baccalaureate program. Alberta Vocational College — Lac La Biche, Grande Prairie Regional College and Mount Royal College offer certificate programs of approximately one year in length. The diploma programs are offered at Grant MacEwan Community College, Lakeland College, Lethbridge Community College, Mount Royal College and Red Deer College; the baccalaureate program is offered at the University of Calgary. In the 1989–90 academic year the certificate, diploma and baccalaureate programs produced 22, 111 and five graduates, respectively.

1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Table 3
Educational Programs for Rehabilitation Practitioners in Alberta[1]

	1987–88	1988–89	1989–90
A. Certificate Programs in Rehabilitation Services			
Alberta Vocational College — Lac La Biche			
(Program Length: 36 weeks)			
Enrolments:			
1st Year	15	9	11
Graduates:	10	8	9
Grande Prairie Regional College[2]			
(Program Length: 44 weeks)			
Enrolments:			
1st Year	21	13	17
Graduates:	11	8	10
Medicine Hat College[3]			
(Program Length: 1 years)			
Enrolments:			
1st Year	23	21	—
Graduates:	9	12	—
Mount Royal College			
(Program Length: 1 year)			
Enrolments:[4]	56	77	76
Graduates:	3	3	3
Provincial Total			
Number of Certificate Training Programs: 3			
Graduates:	30	31	22
B. Diploma Programs in Rehabilitation Services			
Grant MacEwan Community College			
(Program Length: 2 years)			
Enrolments:			
1st Year	102	42	41
2nd Year	28	35	32
Graduates:	28	32	32
Lakeland College[5]			
(Program Length: 2 years)			
Enrolments:			
1st Year	—	—	23
2nd Year	—	—	—
Graduates:	—	—	—

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 This program commenced in 1986-87, program extended to a two-year diploma in September 1990.

3 Program commenced in 1985-86 and was discontinued as of June 1989.

4 Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

5 New program, first graduating class will be in May 1991.

Table 3 continued
Educational Programs for Rehabilitation Practitioners in Alberta[1]

	1987–88	1988–89	1989–90
Lethbridge Community College			
(Program Length: 2 years)			
Enrolments:			
1st Year	28	29	30
2nd Year	25	27	21
Graduates:	8	13	13
Mount Royal College			
(Program Length: 2 years)			
Enrolments:[2]			
1st Year	56	77	76
2nd Year	54	58	49
Graduates:	30	60	35
Red Deer College			
(Program Length: 2 years)			
Enrolments:			
1st Year	52	53	44
2nd Year	34	35	37
Graduates:	24	36	31
Provincial Total			
Number of Diploma Training Programs: 5			
Graduates:	90	141	111
C. Baccalaureate Program in Rehabilitation Education[3]			
University of Calgary			
(Program Length: 4 years)			
Enrolments:			
1st Year	4	—	—[4]
2nd, 3rd and 4th Years Combined	5	17	24
Graduates:	1	1	5

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 Enrolment figures include both students registered in the certificate program and students registered in the diploma program.

3 Alberta Department of Advanced Education. Number of students enrolled in and graduated from Rehabilitation Education Program (University of Calgary), 1987-88 and 1988-89.

4 1989-90 enrolment and graduate figures; Source: The University of Calgary Fact Book, 1989-90 and 1990-91.

Respiratory Therapists

I. Overview

Definition: Administer respiratory therapy to patients in hospital or at home. Discuss patient's treatment with medical and nursing staff. Set up ventilators, incubators, manual resuscitators and other life support equipment. Attach life support equipment to patient. Operate controls of equipment to adjust airway pressure, humidity, blood gas levels, respiratory rate and other factors. Monitor patient's progress and equipment function. Perform basic pulmonary function tests to assist physician in diagnosis of respiratory illnesses. Take blood sample from patient and analyze for blood gas values, if required. Explain treatment procedures and demonstrate equipment operation to patients and hospital personnel. Perform artificial respiration and external cardiac massage, if required. Service and repair equipment and inspect all medical piping, manifolds and patient alarm system.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa Ontario: Employment and Immigration Canada, 1980)

Respiratory therapists have been regulated under the Health Disciplines Act since 1986. In April 1989 the regulatory responsibility for the discipline was transferred to the Alberta Society of Respiratory Therapists (ASRT). Therefore, registration data from the ASRT is used as the source of workforce information.

There were 610 respiratory therapists registered with the Alberta Society of Respiratory Therapists in 1990.[1] Respiratory therapists in the Census Metropolitan Areas of Calgary and Edmonton accounted for 83 percent of the total. The number of respiratory therapists registered in Alberta increased by 27.6 percent between 1988 and 1990. During the same period the provincial population grew by 3.5 percent. The provincial personnel-to-population ratio was 1:4,052 in 1990.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Society of Respiratory Therapists
#205, 4500 – 16 Avenue N.W.
Calgary, Alberta
T3B 0M6

President: Mr. Cal Niebergall
Acting Registrar: Mr. David Stone

b) Legislation:

Respiratory therapists have been regulated under the Health Disciplines Act since March 31, 1986. The Alberta Society of Respiratory Therapists is responsible for registration and discipline of practitioners. Educational qualifications have been set by the Board in regulation.

The titles "registered respiratory therapist" and "registered respiratory technologist" are reserved by regulation for registered members.

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1 Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of December 31, 1990.

III. Personnel Data

Table 1A
Geographic Distribution of Registered Respiratory Therapists, Alberta, 1990

Census Division (Major Urban Centre)	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	13	57,200	1:4,400
2 (Lethbridge)	24	117,000	1:4,875
3 (Pincher Creek)	2	36,600	1:18,300
4 (Hanna)	0	12,000	—
5 (Drumheller)	1	39,200	1:39,200
6 (Calgary excluding CMA)	5	49,000	1:9,800
7 (Stettler)	0	39,200	—
8 (Red Deer)	25	124,000	1:4,960
9 (Rocky Mountain House)	0	16,300	—
10 (Camrose)	6	76,600	1:12,767
11 (Edmonton excluding CMA)	1	26,500	1:26,500
12 (Bonnyville)	4	44,900	1:11,225
13 (Whitecourt)	4	56,200	1:14,050
14 (Hinton)	0	25,700	—
15 (Banff)	2	26,000	1:13,000
16 (Fort McMurray)	5	47,800	1:9,560
17 (High Level)	0	50,100	—
18 (Grande Cache)	0	13,900	—
19 (Grande Prairie)	11	73,400	1:6,673
Census Metropolitan Area (CMA) of Calgary	222	721,200	1:3,249
Census Metropolitan Area (CMA) of Edmonton	285	818,600	1:2,872
Provincial Total	**610**	**2,471,600[3]**	**1:4,052**

1 Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of December 31, 1990.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Registered Respiratory Therapists, Alberta, 1990

Community by Population Size	Number Registered[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	222	721,200	1:3,249
Census Metropolitan Area (CMA) of Edmonton	285	818,600	1:2,872
10,000 to 69,999			
Camrose	3	13,400	1:4,467
Fort McMurray	5	33,740	1:6,748
Grande Prairie	10	27,560	1:2,756
Hinton	0	10,070	—
Lethbridge	23	60,900	1:2,648
Medicine Hat	13	42,930	1:3,302
Red Deer	21	56,920	1:2,710
Wetaskiwin	1	10,200	1:10,200
4,900 to 9,999			
Banff	0	6,920	—
Bonnyville	1	5,170	1:5,170
Brooks	0	9,340	—
Canmore	1	5,320	1:5,320
Coaldale	0	5,230	—
Crowsnest Pass	1	6,550	1:6,550
Drumheller	0	6,710	—
Edson	0	7,530	—
High River	1	5,750	1:5,750
Innisfail	0	5,750	—
Lacombe	0	6,470	—
Lloydminster	1	9,600	1:9,600
Okotoks	2	6,380	1:3,190
Olds	0	5,230	—
Peace River	0	6,640	—
Ponoka	0	5,850	—
Rocky Mountain House	0	5,350	—
Slave Lake	0	5,930	—
St. Paul	2	4,900	1:2,450
Stettler	0	4,950	—
Taber	0	6,310	—
Vegreville	0	5,030	—
Whitecourt	0	6,690	—
Under 4,900	18	532,480	1:29,582
Provincial Total	**610**	**2,471,600**	**1:4,052**

1 Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of December 31, 1990.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Respiratory Therapists in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Registered Personnel	478[1]	566[2]	610[3]
% Change in Number of Registered Personnel	4.6%	18.4%	7.8%
Population (Alberta)[4]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:4,997	1:4,281	1:4,052

IV. Educational Programs

The Northern Alberta Institute of Technology and the Southern Alberta Institute of Technology each offer a two-year respiratory therapy diploma program. There were 61 graduates from the two programs in 1989–90.

Table 3
Educational Programs for Respiratory Therapists in Alberta[5]

	1987–88	1988–89	1989–90
Diploma Program in Respiratory Therapy			
Northern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	41	41	44
2nd Year	38	36	39
Graduates:	35	37	38
Southern Alberta Institute of Technology			
(Program Length: 2 years)			
Enrolments:			
1st Year	26	26	30
2nd Year	29	26	26
Graduates:	25	23	23
Provincial Total			
Number of Training Programs: 2			
Graduates:	60	60	61

1 Source: Respiratory Therapists Committee, Alberta Health Disciplines Board. Number of respiratory therapists registered with the Committee and residing in Alberta as of December 31, 1988.

2 Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of May 1, 1990.

3 Source: Alberta Society of Respiratory Therapists. Number of active respiratory therapists registered with the ASRT and residing in Alberta as of December 31, 1990.

4 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

5 Source: **Alberta Health and Social Service Education Programs Inventory.** Edmonton, Alberta: Department of Advanced Education, December 1990.

Social Workers

I. Overview

Definition: Counsel and aid individuals and families to understand and resolve their personal and social problems. Interview clients with problems, such as personal, social and family adjustments, finances, employment, and physical and mental impairments, to determine nature, extent and causes of problems. Secure information, such as social, economic, environmental, medical and psychological factors, contributing to client's situation. Evaluate information obtained and assess client's capacities. Determine type of assistance required, counsel client regarding plans for meeting needs, and assist client to mobilize his inner capacities and environmental resources to improve social functioning. Aid client, through casework methods, to modify attitudes and patterns of behaviour by increasing understanding of himself, his problems and his part in creating them. Refer client to community agencies and other organizations and arrange for provision of appropriate assistance, such as financial aid, employment, vocational training, medical treatment, recreational opportunities or housing. Follow progress of client after immediate problems have been overcome, and compile case records and prepare reports. May secure supplementary information such as employment, police or medical records, or school reports. May work in collaboration with professionals in other disciplines.

(Source: **Canadian Classification and Dictionary of Occupations**. Ottawa, Ontario: Employment and Immigration Canada, 1980)

As of December 31, 1990 the Alberta Association of Social Workers had 1,417 registered members of which 999 resided in Alberta and had full practice rights.[1] Since membership in the Association is not mandatory, the survey of health and social service personnel working in Alberta conducted on March 31, 1990 by the Alberta Health and Social Services Disciplines Committee, was used as an alternative source of workforce information.

The survey found that there were 2,773 social workers practising in Alberta in 1990.[2] Social workers employed in the Census Metropolitan Areas of Calgary and Edmonton accounted for 64 percent of those employed. The provincial social worker-to-population ratio was 1:891 in 1990.

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1 Source: Alberta Association of Social Workers. Number of registered members as of December 31, 1990.

2 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

II. Professional Association and Legislation Information

a) Professional Association/Registration Body:

Alberta Association of Social Workers
#100, 11831 – 123 Street
Edmonton, Alberta
T5L 0J7

Executive Director/Registrar: Ms. Margaret Duncan
President: Ms. Margot Herbert

b) Legislation:

Under the authority of the Social Workers Act, all individuals who wish to use the title of "registered social worker" must register with the Alberta Association of Social Workers (AASW). However, registration is not mandatory in order to practise in the province. In addition to registration responsibilities, the Association has the power to discipline its members. The Universities Coordinating Council evaluates academic qualifications of applicants trained outside of Alberta and sets examinations for registration purposes.

A new Social Work Profession Act was assented to in the 1991 spring session of the legislature, but has not yet been proclaimed.

III. Personnel Data

Table 1A
Geographic Distribution of Practising Social Workers, Alberta, 1990

Census Division (Major Urban Centre)	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
1 (Medicine Hat)	42	57,200	1:1,362
2 (Lethbridge)	138	117,000	1:848
3 (Pincher Creek)	23	36,600	1:1,591
4 (Hanna)	8	12,000	1:1,500
5 (Drumheller)	18	39,200	1:2,178
6 (Calgary excluding CMA)	16	49,000	1:3,063
7 (Stettler)	15	39,200	1:2,613
8 (Red Deer)	153	124,000	1:810
9 (Rocky Mountain House)	17	16,300	1:959
10 (Camrose)	30	76,600	1:2,553
11 (Edmonton excluding CMA)	25	26,500	1:1,060
12 (Bonnyville)	54	44,900	1:831
13 (Whitecourt)	49	56,200	1:1,147
14 (Hinton)	21	25,700	1:1,224
15 (Banff)	13	26,000	1:2,000
16 (Fort McMurray)	58	47,800	1:824
17 (High Level)	103	50,100	1:486
18 (Grande Cache)	4	13,900	1:3,475
19 (Grande Prairie)	195	73,400	1:376
Census Metropolitan Area (CMA) of Calgary	795	721,200	1:907
Census Metropolitan Area (CMA) of Edmonton	996	818,600	1:822
Provincial Total	**2,773**	**2,471,600[3]**	**1:891**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: Estimates of population in Alberta as of June 1, 1990 — Alberta Bureau of Statistics, May 1991.

3 Note: Data does not add to the total due to rounding.

Table 1B
Community Breakdown of Practising Social Workers, Alberta, 1990

Community by Population Size	Number Practising[1]	1990 Population[2]	Personnel-to-Population Ratio
70,000 and Over			
Census Metropolitan Area (CMA) of Calgary	795	721,200	1:907
Census Metropolitan Area (CMA) of Edmonton	996	818,600	1:822
10,000 to 69,999			
Camrose	14	13,400	1:957
Fort McMurray	20	33,740	1:1,687
Grande Prairie	81	27,560	1:340
Hinton	16	10,070	1:629
Lethbridge	112	60,900	1:544
Medicine Hat	42	42,930	1:1,022
Red Deer	113	56,920	1:504
Wetaskiwin	23	10,200	1:443
4,900 to 9,999			
Banff	1	6,920	1:6,920
Bonnyville	23	5,170	1:225
Brooks	6	9,340	1:1,557
Canmore	4	5,320	1:1,330
Coaldale	16	5,230	1:327
Crowsnest Pass	8	6,550	1:819
Drumheller	18	6,710	1:373
Edson	5	7,530	1:1,506
High River	0	5,750	—
Innisfail	4	5,750	1:1,438
Lacombe	0	6,470	—
Lloydminster	2	9,600	1:4,800
Okotoks	1	6,380	1:6,380
Olds	10	5,230	1:523
Peace River	21	6,640	1:316
Ponoka	19	5,850	1:308
Rocky Mountain House	17	5,350	1:315
Slave Lake	24	5,930	1:247
St. Paul	16	4,900	1:306
Stettler	5	4,950	1:990
Taber	3	6,310	1:2,103
Vegreville	2	5,030	1:2,515
Whitecourt	14	6,690	1:478
Under 4,900	342	532,480	1:1,557
Provincial Total	**2,773**	**2,471,600**	**1:891**

1 Source: Survey of health and social service personnel working in Alberta, March 31, 1990 — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: For those communities which did not carry out a census, the population estimates are experimental results derived from the Alberta Bureau of Statistics small area population model, which is still in development. The Bureau estimates may differ from the official population figures compiled by Alberta Municipal Affairs.

Table 2
Selected Workforce Statistics for Social Workers in Alberta, 1988, 1989, and 1990

	1988	1989	1990
Number of Practising Personnel[1]	2,585	2,905	2,773
% Change in Number of Practising Personnel	5.8%	12.4%	-4.5%
Population (Alberta)[2]	2,388,700	2,423,000	2,471,600
% Change in Population	0.5%	1.4%	2.0%
Personnel-to-Population Ratio: — Alberta	1:926	1:834	1:891

IV. Educational Programs

The University of Calgary offers both a four-year Bachelor of Social Work (BSW) program and a 12 to 18 month Master of Social Work (MSW) program. In 1989–90, the BSW and MSW programs produced 168 and 36 graduates, respectively.

Divisions of the Faculty of Social Work of the University of Calgary are located in Edmonton and in Lethbridge. Both the Edmonton and Lethbridge Divisions offer the full first professional degree (Bachelor of Social Work). Social work courses are offered in various locations throughout the province, either through on-site faculty instruction or through the University of Calgary teleconferencing network.

In addition, there are diploma programs in social services available at Grant MacEwan Community College, Mount Royal College, and Red Deer College. These programs produced a total of 199 graduates in 1989–90. There is also a community social service certificate and diploma offered by Alberta Vocational College — Lac La Biche. In the 1989–90 academic year these programs produced 14 and three graduates, respectively.

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1 Source: Survey of health and social service personnel working in Alberta, March 31 of the indicated year — conducted by the Alberta Health and Social Services Disciplines Committee, Edmonton, Alberta.

2 Source: **Alberta Population Growth, First Quarter, 1991.** Revised June 1 population estimates, Alberta Bureau of Statistics, June 1991.

Table 3
Educational Programs for Social Workers in Alberta[1]

	1987–88	1988–89	1989–90
A. Social Service Diploma Programs			
Grant MacEwan Community College			
(Program Length: 2 years)			
Enrolments:[2]			
1st Year	145	179	99
2nd Year	150	100	127
Graduates:	101	87	103
Mount Royal College			
(Program Length: 2 years)			
Enrolments:			
1st Year	137	141	168
2nd Year	94	80	112
Graduates:	67	48	62
Red Deer College			
(Program Length: 2 years)			
Enrolments:			
1st Year	30	30	62
2nd Year	31	30	35
Graduates:	25	27	34
B. Community Social Service Certificate/Diploma			
Alberta Vocational College — Lac La Biche			
Program Length: (Certificate: 1 year)(Diploma: 2 years)			
Enrolments:[3]			
1st Year	15	13	21
2nd Year	9	7	4
Graduates:			
Certificate	8	8	14
Diploma	8	5	3
Provincial Total			
Number of Diploma Training Programs: 4			
Graduates:	201	167	202

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 Enrolment and graduate data include part-time evening and full-time outreach data from the Grouard and the Yellowhead Tribal Council programs.

3 Enrolment data includes figures for the Slave Lake outreach program.

Table 3 continued
Educational Programs for Social Workers in Alberta[1]

	1987–88	1988–89	1989–90
C. Baccalaureate Program			
University of Calgary			
Bachelor of Social Work			
(Program Length: 4 years)			
Enrolments:[2]			
1st Year	2	2	—
2nd Year	60	51	21
3rd Year	200	206	218
4th Year	117	169	161
Graduates:	149	151	168
D. Master's Program			
University of Calgary			
Master of Social Work			
(Program Length: 12–18 months)[3]			
Enrolments:			
1st Year	49	45	50
Graduates:	46	32	36

1 Source: **Alberta Health and Social Service Education Programs Inventory**. Edmonton, Alberta: Department of Advanced Education, December 1990.

2 The Faculty of Social Work admits students from other faculties into the third year of the BSW program. This accounts for the discrepancy between the enrolment figures for the second year and the third year of the program.

3 The MSW program is one year in length following a BSW degree. Students with an undergraduate degree other than a BSW degree may be admitted to a two-year program.